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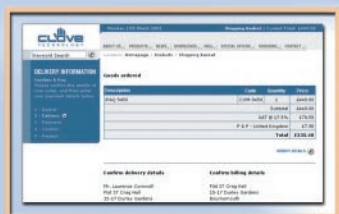
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# palmtop

The magazine for handheld  
computers & communicators **USER**

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Publications

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# EDITORIAL

**W**e may be in the midst of an economic downturn but, from what I can see, PDA development is running at its most frenetic pace ever.

In this issue we have an incredible *ten* reviews of major new handheld devices, spanning Symbian, Palm OS and Pocket PC. Although we expect considerably fewer devices to appear for the next issue, the flood of new handhelds has increased enormously in a short number of months.

Harking back only a few years, it was uncommon to have more than one or two new hardware releases per month, and in the mid-1990s when Psion was virtually the only game in town, it was many months or even years between new palmtop releases.

So, is this seemingly endless flood of new releases really doing consumers any good, or is it merely serving to make us prematurely dissatisfied with our perfectly serviceable handhelds?

Undoubtedly, newcomers to the handheld market are enjoying major benefits from this state of affairs. Such a healthy level of competition means that more feature-rich devices are becoming available at ever-falling prices. For instance, this issue sees the appearance of the first sub-£200 Pocket PCs, the first Wi-Fi-enabled Palm OS handheld, the lowest-priced full-featured Symbian smartphone ever—you get the idea.

## ***Palmtop User is...***

Steve Clack - Publishing Editor

Rosemary Rolfe - Distribution Manager

Christian Hayle - Artwork & Design

Steve Litchfield - Sub-Editor

Pete Sipple - Technical Editor (Symbian/Pocket PC)

Steve Turczyn - Technical Editor (Palm OS)

Anne Johnstone - Senior Contributor

Steve Mann - Development Consultant

Thanks to all the contributors whose names appear within the magazine. Thanks also to all those who have kindly supplied their products for evaluation.

Printed by Century Litho

And for those of use who already have a PDA? No matter how much we try to convince ourselves that what we have works just fine and fulfils all our immediate needs, it's hard not to feel just a slight urge to reach for the wallet when faced with some of the latest offerings. After all, who can fail to be tempted by a new handheld that's twice as fast, with a better screen and twice as much memory as the one you bought only 12 months ago? And all for the same price.

Regardless of how well we control these urges, we can be sure that 'upgrade fever' is exactly what the manufacturers are banking on, so that constant, nagging dissatisfaction is something we had better get used to.

*Steve Clack - May 2003*

# Handheld News

What's new in the world of handheld computing

## Flurry of new Palms

Palm has announced and released the camera-toting Zire 71 (available now, see our review on page 29) and the Wi-Fi Tungsten C (shown below), due for imminent UK release. The long-awaited Tungsten W, with built-in telephony, will be starting to appear in Europe by the time you read this, and is reviewed on page 35.

The Tungsten C boasts 64MB of internal memory and a 400MHz Intel XScale processor, making it by far the highest specification Palm OS handheld yet. The unit also incorporates a miniature keyboard, similar to that on the Tungsten W. See page 32 for a full review.

[www.palm.com](http://www.palm.com)



## Breaking the 16MB barrier

Palm OS is gradually breaking free from the constraints of the past. Palm Solutions Group has announced it has overcome the previous 16MB internal memory limit, with a new maximum of 128MB. The breakthrough has been officially incorporated into Palm OS by PalmSource in OS version 5.2.1, as seen on the new 64MB Tungsten C.

[www.palmsource.com](http://www.palmsource.com)

## Toshiba e350, e750 debut

Toshiba has released the e750 and e350 Pocket PCs, both running Intel's new PXA255 XScale processor. The new





models also feature the latest transreflective displays, and the e750 comes with a huge 96MB of RAM and Wi-Fi. See page 56 for a full review of the e350. A review of the e750 will appear in the next issue.

[www.toshiba.com](http://www.toshiba.com)

## And a radio, too

In a whirlwind of marketing hype ("instant design classic", "as powerful as it is beautiful", you get the idea) Siemens has announced another Symbian/Series 60 smartphone, the SX1. This has



yet another new keypad arrangement (down both sides of the screen) and an FM radio, in addition to the normal Series 60 application set (as used on the Nokia 3650, see page 41).

[www.siemens-mobile.com](http://www.siemens-mobile.com)

## Samsung hedges its bets

Samsung now has three upcoming smartphones, the D700 (running Symbian/Series 60), the i500 (running Palm OS 5.2) and finally the i700 (running Pocket PC 2002). Designs vary, but each also includes a digital camera.

[www.samsung.com](http://www.samsung.com)

## AOL teams up with Symbian

America Online has joined Symbian's Platinum Program, bringing its Instant Messenger, ICQ and T9 technologies to future Symbian OS-based products.

[www.symbian.com](http://www.symbian.com)

## European snapshot

The latest (Q1) European figures for handhelds show sales of smartphones and communicators continuing to grow. Nokia is the leader with its 9210i, 7650 and 3650 (reviewed on page 41), with an impressive 53% of the market. Also based on Symbian OS, the new Sony Ericsson P800 claimed a 12% share, despite only being available for the last month of the quarter. Pocket PC units from all vendors (24%) pipped those using Palm OS (19%) for second place.

[www.canalys.com](http://www.canalys.com)



## More new CLIEs

Sony has officially introduced the CLIE TG50, SJ22 and SJ33 handhelds. The TG50 includes an integrated, backlit thumb keyboard and Bluetooth, the SJ22 is a low cost model with a high resolution colour screen, and the SJ33 (shown above) also includes an integrated translucent flip cover, new button designs and an MP3 player. See page 37 for a review of the TG50. Full reviews of the SJ22 and SJ33, together with the high-end NZ90, will appear in the next issue.

[www.sonymstyle.com](http://www.sonymstyle.com)

## N-Gage!

Nokia has revealed more details about its upcoming Symbian/Series 60-based wireless mobile gaming console. The N-Gage will have GPRS, tri-band GSM, MP3 Playback, Bluetooth and an FM Radio, in addition to the usual Series 60 applications and an MMC expansion slot. The N-Gage should be available in the Autumn.

[www.N-Gage.com](http://www.N-Gage.com)

## More Palm OS smartphones

Group Sense Limited has announced two new Palm OS Smartphones. Both run Palm OS 4.1 and will be targeted at the Asian and European markets. They share nearly identical specifications and differ only by form factor. The Zircon is a flat, one-piece model while the Onyx (shown below) has a clamshell design. Both have a 160x240 screen resolution, virtual Graffiti area and include a low resolution digital camera.

[www.gspda.com](http://www.gspda.com)



## A PDA called Wanda

Texas Instruments has revealed a new tri-wireless PDA concept design, code named 'WANDA', for Wireless Any-Network Digital Assistant, integrating wireless LAN 802.11b, Bluetooth and GSM/GPRS tri-band technologies into a single design to enable simultaneous wireless connectivity anywhere.

[www.ti.com](http://www.ti.com)



## **New MiTAC smartphone**

Based on Microsoft's Smartphone 2002 platform, MiTAC's Mio 8380 includes a tri-band GPRS mobile phone, transreflective screen and low-res camera.

[www.mitac.com](http://www.mitac.com)

## **New rugged PDAs from Casio**

Casio is releasing two new handhelds, the IT-500 and the DT-X10. Both will have numeric keypads, and are based on Windows CE.Net 4.1. They can stand a drop onto concrete from at least a metre, and comply with the IP54 environmental standard, which means they can be used safely in the rain.

[www.vnunet.com/Analysis/1139110](http://www.vnunet.com/Analysis/1139110)

## **Motorola and Symbian do 3G**

Information has become available on the upcoming Motorola A920 tri-band GSM/GPRS/UMTS smartphone, which uses UIQ on top of Symbian OS, as in Sony Ericsson's P800. Also included will be a GPS receiver and digital camera. Aimed primarily at 3G users, they'll be able to take part in video calls and access location-based services. Unlike the P800, the A920 will use an industry standard SD expansion slot.

[www.infosync.no](http://www.infosync.no)

## **RealOne for Palm appears**

The long awaited free MP3 software for Tungsten T owners, promised by Palm, has finally arrived in the form of RealOne Mobile Player, available for

immediate download. See our 'Sound & Vision' article on page 73 for more information.

[www.realn timers.com/mobile/player/palm](http://www.realn timers.com/mobile/player/palm)

## **T|T digitizer patch**

Palm has released a patch for the Tungsten T's digitizer, resolving issues affecting the top 5mm of the display.

[www.palm.com/support/downloads/tungstent\\_digitizer.html](http://www.palm.com/support/downloads/tungstent_digitizer.html)

## **Samsung buys stake in Symbian**

Samsung, the only large phone manufacturer to have licensed Microsoft's Smartphone platform and applications, has now bought a £17 million stake in Symbian.

[www.samsung.com](http://www.samsung.com)

## **Intel joins the fray**

Intel has now joined Symbian's Platinum Partner Program. It will also start providing a new software development kit (SDK) that includes Symbian OS version 7.0, to help developers design hardware and software based on the Intel XScale microarchitecture.

[developer.intel.com](http://developer.intel.com)

## **Handspring ties the knot**

Handspring and the network operator Orange have signed an agreement to develop smartphones together for Orange customers throughout Europe.

[www.handspring.co.uk](http://www.handspring.co.uk)



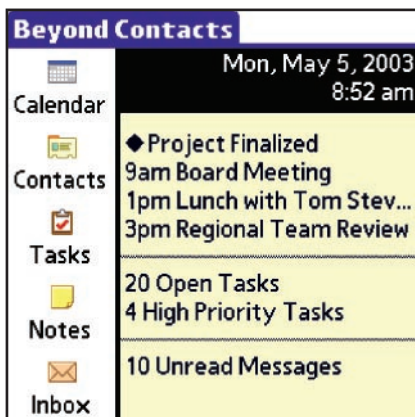
## Navigator 2

Palmtop Software BV has announced TomTom Navigator 2 for Pocket PCs. The new version includes the latest Tele Atlas maps, an improved interface, 3D display, house number and postcode support, plus integration with Microsoft Outlook. We'll be giving this next generation software a full in-depth review in issue 5.

[www.tomtom.com](http://www.tomtom.com)

## Beyond Contacts

DataViz, maker of the ubiquitous Documents To Go interface to Microsoft Office documents, has released Beyond Contacts, which claims to do even more for Microsoft Outlook users. Completely replacing the built-in Palm OS PIM applications, Beyond Contacts looks, feels and acts like Outlook, with complete



integration between its different components. The software retails at \$50 and will be reviewed in full in the next issue.

[www.dataviz.com](http://www.dataviz.com)

## Files, files

EpocWare has released PC File Manager for all Symbian OS smartphones. The standard PC Suite for 7650/P800, etc. hides most of the files on your device, but File Manager reveals all and gives you much more control, from the comfort of a Windows interface.

[www.epocware.com](http://www.epocware.com)

## VersaMail develops

Palm has announced version 2.5 of its VersaMail (developed from the venerable MultiMail Pro) email application. The major upgrade includes support for high-resolution colour screens, automatic email retrieval and notification, better integration with Address Book, better attachment and SD card support, display of HTML messages and even





more synchronization options. VersaMail is shipped with Palm Tungsten handhelds and is also available separately for \$35.

[software.palm.com](http://software.palm.com)

## Opera on Series 60 at last

Opera Software has released Opera for Symbian OS mobile browser (see above left) with Small-Screen Rendering (SSR) for all Series 60 smartphones, such as the Nokia 7650 and 3650. The price is initially set at €20. We'll be covering Opera and SSR in a future article.

[www.opera.com](http://www.opera.com)

## Carry on browsing

Also released for all Symbian smartphones is WebViewer (see above right), a Java midlet-based web browser that works in conjunction with Requirless's proxy servers, reformatting and



packaging full web pages into smaller, faster versions.

[www.reqwireless.com/webviewer.html](http://www.reqwireless.com/webviewer.html)

## And again, with AvantGo

The hugely popular AvantGo service has now been ported to Symbian/Series 60 devices. AvantGo offers offline news and daily content, and already works on most versions of Palm OS and Pocket PC.

[my.avantgo.com](http://my.avantgo.com)

## UIQ advances

UIQ Technology has unveiled UIQ 2.1, based on Symbian OS v 7.0, including an integrated telephony application, the latest version of Java MIDP (v2.0) and enhancements on all fronts. UIQ is used by manufacturers such as Sony Ericsson and Motorola in their communicators and smartphones.

[www.uiq.com](http://www.uiq.com)

## Sony NX70 gets CF support

Although released without proper CompactFlash software support, a third party has stepped in with a driver to allow standard CF memory cards to be used in the Sony CLIE NX70.

[www.eruware.com](http://www.eruware.com)

## Born again OPL programming

As rumoured in the last issue, and in a significant show of confidence, OPL has now been released by Symbian under the LGPL license as an open source project, along with an alpha runtime for use on Series 60 smartphones. OPL is the BASIC-like programming language supplied with all Psion palmtops and also available for the Nokia 9200 series communicators.

[opl-dev.sourceforge.net](http://opl-dev.sourceforge.net)



## The 7650 as a camcorder

Sounds unlikely, and you're limited to 15 seconds at a time, but you can now record video clips with sound on the original Series 60 device, the Nokia 7650, with the aid of a free (420K) application.

[www.nokia.com/nokia/0,5184,2008,00.html](http://www.nokia.com/nokia/0,5184,2008,00.html)

## Symbian to Unix

KI AG has released free software to link Symbian-based smartphones and communicators to Unix/Linux.

[www.ki-ag.de/html/tech/p3nfs.html](http://www.ki-ag.de/html/tech/p3nfs.html)

## One-step Palm installation

PalmGear HQ has introduced Stream-Lync, a system designed to help new users install Palm OS software without needing to understand ZIP files, search for .PRC files, etc.

[www.palmgear.com](http://www.palmgear.com)

## Patch to use the PRO

Sony has released a software patch allowing users of its CLIE NX series, NZ90 and TG50 to use the new Memory Stick PRO format. Sony has also released updates to the Audio Player and CLIE Viewer programs, as well as an updated SMS Bluetooth driver.

[www.ita.sel.sony.com/support/clie](http://www.ita.sel.sony.com/support/clie)

## New from Psion

Since its withdrawal from the handheld market almost two years ago now, many have been wondering what Psion has been up to. At Symposium, the Symbian Developer's recent conference, the new Psion Software unveiled its Transcend Mail product, a software solution designed for large-scale deployment to mobile workforces looking to access corporate email and PIM data while on the move.

[www.pSIONsoftware.com](http://www.pSIONsoftware.com)

## End of the HandEra era

Sadly, HandEra has announced that it will no longer release Palm OS-based handheld products, citing high licensing costs as the main factor. HandEra was a real innovator in the Palm OS world, being the first to launch a handheld



with memory expansion, high resolution screen, digital sound and dual expansion slots.

[www.handera.com](http://www.handera.com)

## SD, CF and miniSD

SanDisk has announced that 1 Gigabyte SD memory cards will be available later this year, and has also released 2GB and 4GB CompactFlash cards (the latter at \$1000). SanDisk has also announced miniSD format, a new thumbnail-sized (21.5x20x1.4mm) flash memory card, initially aimed at the mobile phone market. Crucially, miniSD is both electrically and software compatible with the existing SD standard, and can be inserted into an adaptor for use in existing SD slots.

[www.sandisk.com](http://www.sandisk.com)

## Traffic master

For drivers in the UK, Traffic-i is a new system based around the Sony Ericsson



P800, giving live, on-screen information on traffic conditions ahead.

[www.traffic-i.com](http://www.traffic-i.com)

## SnapperMail finally released

The Palm OS POP3 email client, SnapperMail, is now in full release. SnapperMail is currently unique in having extensive support for native file attachments, working in conjunction with software such as Quickoffice Premier. See page 58 for a full review.

[www.snappermail.com/palm/email](http://www.snappermail.com/palm/email)  
[www.quickoffice.com](http://www.quickoffice.com)

## Sonic the Hedgehog

Sonic and other 'classic' games have now been ported to Palm OS and marketed by Palm itself, at \$20 each.

[www.palm.com/sega](http://www.palm.com/sega)

## A little light reading

YourSymbian is a new, free text magazine devoted to the latest news and thoughts in the world of Symbian OS. It's distributed every two weeks by email and you can sign up at [www.yoursymbian.com](http://www.yoursymbian.com).

## It's a wind-up!

Finally, if you're a mobile or smartphone user and regularly trek off into the outback, the Wind-up Multi Mobile Charger will give you up to eight minutes of extra talk/data time for every three minutes worth of hand-winding!

[www.iwantoneofthose.com](http://www.iwantoneofthose.com)

## Obituary - Debbie Barham

Longstanding readers will undoubtedly remember Debbie Barham, whose satirical 'Musings' column appeared in both Palmtop and PalmUser magazines between 2000 and 2001.

Tragically, Debbie died on 20th April this year, due to heart failure associated with anorexia, which she had been struggling with for eight years. She was only 26 years old.

Debbie had been writing comedy since the age of 16, and her huge body of work spanned TV, radio, newspapers and magazines. She wrote a regular column for Punch magazine, and her contract writing for the BBC included material for Spitting Image, Bob Monkhouse, Graham Norton, Angus Deayton, Rory Bremner and Clive Anderson.

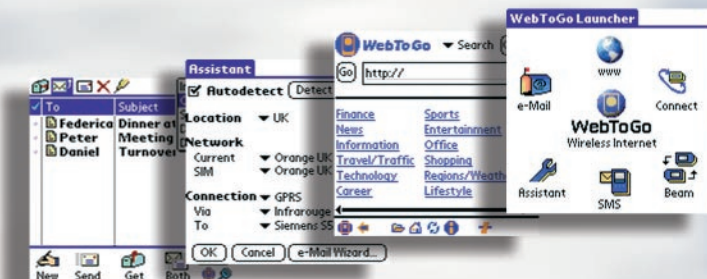
*Deborah Ann Barham, born November 20th 1976, died April 20th 2003*





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# Palm OS SHORTS

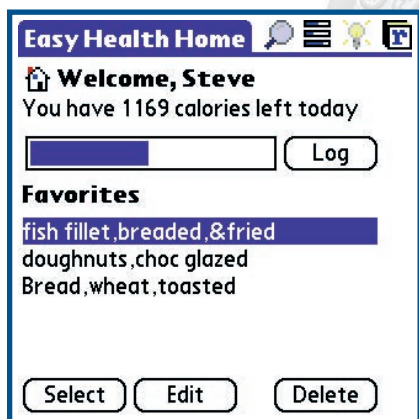


*We take a brief overview of the latest software for your Palm OS handheld or communicator...*

## Daily health

Any software which needs to be fired up many times a day in order to be useful must be quick and intuitive, otherwise it will fall into disuse. **Easy Health's** core function is as a daily log of your calorific and nutritional intake. You first set up 'favorites', the foods you consume regularly, for two-tap selection on the main screen. The underlying food database is very comprehensive (though very US-centric), although it's easy to add in your own foods, supplying the appropriate quantities of protein, carbohydrates,

cholesterol, etc. From a cup of tea to a three course meal, you then tell Easy Health about everything you consume, and it logs the calories and nutrients accordingly. A summary of dietary basics ('My Day') is shown in clear bar graph form for the current day, week or month. In addition, a Suggestions section analyzes your weekly nutrient intake in more detail (Zinc, Vitamin B12, Fibre, etc.) and suggests foods from the Easy Health database that would give you the nutrients you're lacking. Once you get around the American food names, this is a fabulous tool for anyone concerned about what they eat. \$13, from [www.goodtogosoftware.com](http://www.goodtogosoftware.com).



*Go easy on the doughnuts - Easy Health*

## No compromise imaging

Always at the cutting edge of image viewing on Palm OS handhelds, **AcidImage** has been revamped for the ARM processors in the Palm Tungsten T and Sony NR/NX series, among others. Viewing JPEG images is now very fast indeed, with our large 750K test JPG loading up in an impressive six seconds, and smaller, more typical images loading in a second or so. Images in JPG, GIF and BMP formats can be





*AcidImage—perhaps the fastest and most efficient image viewer for Palm OS*

browsed and viewed from any folder on expansion card, with various thumbnail and slideshow options. By default, images are resized to fit your handheld's screen, but a clever zoom control allows almost instantaneous zooming to any magnification you want. As you'd expect, you can also pan around a large or zoomed image by dragging with the stylus. Useful if you want to take your photo album with you, AcidImage becomes an essential purchase if you also own an MMC card digital camera. \$20, from [www.red-mercury.com](http://www.red-mercury.com).

## One-tap Contacts

**TapDial** is a novel idea for anyone with a Handspring Treo or suitable handheld/phone combination. Each contact you nominate from your Address Book gets its own icon in the main Applications view, with a single tap dialling the contact, of course. The new TapDial icons are assigned their own Applications category by default, but you can

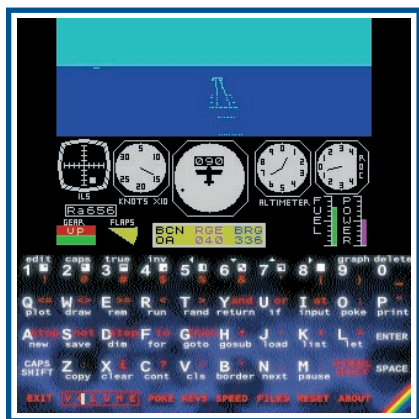


*Putting your most-dialled contacts on your Applications screen, courtesy of TapDial*

reassign them as required. The labels can be customised and there's a choice of a dozen different icons. \$10, from [www.electricpocket.com](http://www.electricpocket.com).

## The Spectrum lives again

Emulators of the ancient (but popular) Sinclair ZX Spectrum home computer have appeared on most other computer platforms, but until now there hasn't been enough processor power behind Palm OS to run such a hungry utility. The arrival of the Palm Tungsten T in the mainstream has changed all that, and **ArmZX** does a faithful job of recreating the ZX Spectrum, right down to the high resolution image of the original rubber keyboard. Of course, most Spectrum applications were games, but even today there are some which have never appeared on other platforms, usually due to licensing issues. Some people will snap this up for the sheer nostalgia factor. ArmZX comes with a convertor utility capable of importing SNA and



*Coming in to land in Psion's ancient Spectrum Flight Simulation—on a Palm!*

TAP files, the two most common program formats for the Spectrum. \$20, from [www.rollingthundersystems.com](http://www.rollingthundersystems.com).

## Name that tone

Veteran PDA users might remember the tone-dialling abilities of the first Psion palmtops, back in 1993. You selected an address book entry, held the palmtop over the telephone mouthpiece, pressed a button and out came a flurry of DTMF tones, in theory dialling the contact number for you. Technology has moved on somewhat since then, and we now have all-in-one communicators and infrared/Bluetooth links to mobile phones, but there might still be a place for a humble tone dialler. **DigiDialler** works well enough, with a one-by-one import function from your Palm OS Address Book and support for phone 'calling cards'. The only annoyance is that you can't control the speed at which the DTMF tones are sounded, a facility which would have been useful for adapting to

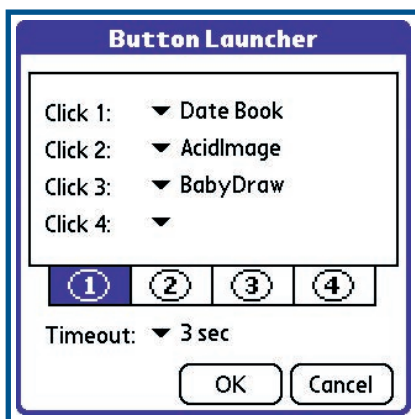


*DTMF dialling, the Palm Tungsten T way, using DigiDialler*

problematic phone exchanges. \$10, from [www.digivello.com](http://www.digivello.com).

## Multi-use buttons

Not exactly a new idea, but **Button Launcher** is implemented simply and works happily on Palm OS 5 handhelds. Each of the four hardware buttons can be assigned up to four applications,



*Configuring Button Launcher*

along with a configurable 'timeout' of a second or two. Upon pressing a button, the Button Launcher screen appears with four quadrants, one for each associated application. Each time you press the button again, the currently selected icon advances to the next quadrant. Importantly, leaving the button un-pressed for the timeout launches the selected application. Setting the timeout to match your own hand/eye coordination requires a little trial and error, but Button Launcher generally works very well. £5, or as part of the Palm Commander suite from [www.palmcommander.com](http://www.palmcommander.com).

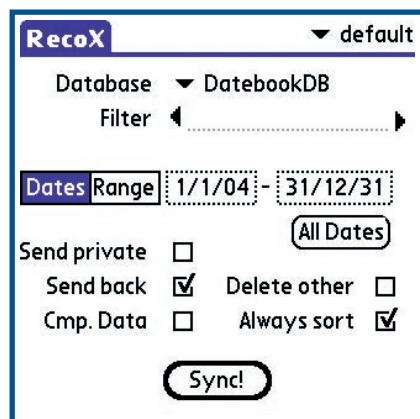
## Tit for tat

Synchronizing the PIM data on two Palm OS handhelds (e.g. with your partner) has always been a bit of a pain. There are a variety of web-based solutions and a handful of desktop-based groupware programs, but perhaps what you really want is to simply point the infrared windows of the two handhelds at each other and tap 'Sync'? **RecoX**

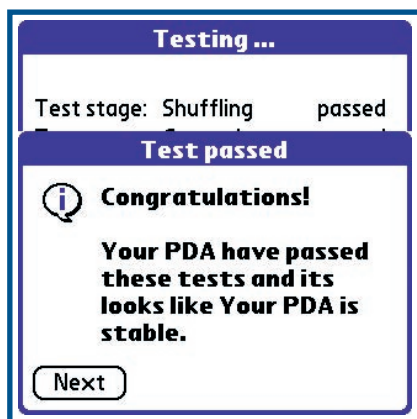
('The Record Exchange tool') has recently been updated and provides an effective, if slightly brute force, means of synchronizing the records in one of the main Palm OS databases between two handhelds. Each database (i.e. 'Date Book', 'Address Book', etc.) has to be synced separately, and each takes between 30 seconds and a couple of minutes. The latest version of RecoX adds support for DateBk5 and repeating appointments, plus bug fixes. \$10 per device, from [www.palmobil.de](http://www.palmobil.de).

## How stable is your Palm?

If the software on your handheld is unstable, you probably already know about it, in the form of frequent resets and other oddities. But just in case, **StabilityTest** can flex the operating system in 'advanced stress mode'. Tests include 'Shuffling' and 'Defrag', and the idea is to find out that there's a problem now rather than later on, maybe in the middle of an important meeting. Freeware, from [www.fly-zip.com](http://www.fly-zip.com).



*Setting RecoX to sync with a partner's Palm*



*Taking the StabilityTest*





# Symbian SHORTS



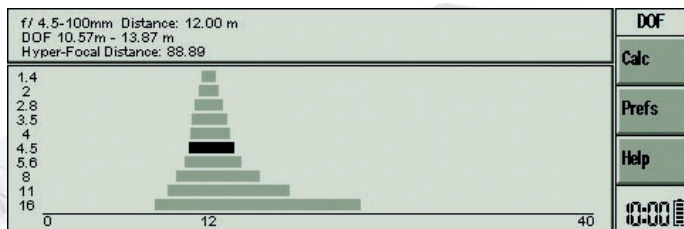
*A roundup of the latest software releases for your Nokia communicator or Psion handheld...*

## Photography corner

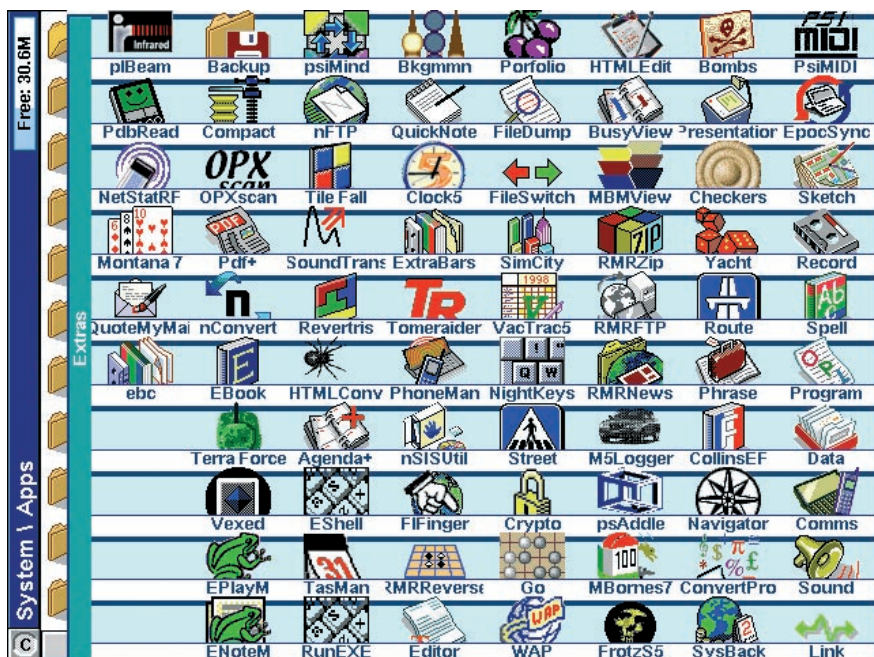
As any photographer knows, understanding the depth of field for the current shot is critical if you want your subjects to stay in focus, and this is where the aptly-named **Depth-Of-Field Calculator (DOF)** comes in. Foreground and background items outside this 'depth' will by definition be out of focus. After specifying the distance and lens type in the opening dialog, the depth of field is calculated for all apertures, and displayed graphically and numerically. Using the up and down arrow keys, you can navigate between the different aperture settings to get a detailed readout. DOF is well programmed and will run on everything from an Osaris to a netBook. Freeware, from [home.hccnet.nl/home.page/epoc](http://home.hccnet.nl/home.page/epoc).

## Extra colour

If you're a Psion Series 7/netBook owner and are bored with the monochrome appearance of standard Series 5 application icons on your Extras bar, **Colour Icons** contains replacements for dozens of the most popular programs. These include Agenda+, BusyView, Collins EF, Conquete, Converter, ConvertPro, Crypto, DCP, EBook, Essential Disk Utilities, EnRoute (Route), ExtraBars, File-Dump, FileLink, FileSwitch, FrotzS5 and many, many more. In addition to being in full colour, the icons have been properly tweaked to appear correctly on the Series 7 screen. Colour Icons' developer is open to suggestions for additional application icons to colourise. Freeware, from [www.pscience5.net](http://www.pscience5.net).



**Depth-Of-Field  
Calculator in  
action**



Add colour to your Extras bar with the Colour Icons set

## Multi-platform translator

There aren't too many genuinely useful applications which are available for every major handheld platform, but **SlovoEd** is certainly one of them. A generic dictionary 'engine', SlovoEd uses the familiar two-paned (browser/detail) interface and is simple to operate. Search clues are quick-matched very rapidly,

despite the high degree of compression in the available dictionaries. The English-French (and vice-versa) language dictionary we reviewed had around 30,000 entries in each direction, but thanks to the compression technology and the use of plain text throughout, the total disk space needed was only half a megabyte. Language dictionaries are also available for English to Russian,



SlovoEd, with English-French loaded, on the Psion Rev0...



...and SlovoEd  
running on a  
Nokia 9210

Hungarian, Dutch, Italian, Portuguese, Spanish, Swedish and German, and the dictionary engine has been ported so far to Psion (EPOC), Nokia 9200 series, Nokia 7650 (Series 60), Palm OS and Pocket PC. Impressive stuff, though not all of the language options are available for every platform, so check the developer's web site. The range of dictionaries is being gradually widened, and as we went to press the 'WordNet dictionary of American and British English' was released for the SlovoEd engine, so there's plenty for everyone. Between \$20 and \$25, from [www.penreader.com](http://www.penreader.com).

## Tucked away

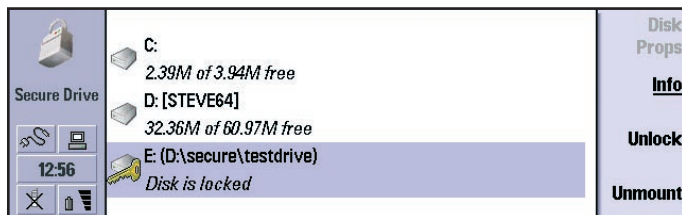
However open you are with the rest of your personal or business life, there are probably files and folders which you consider confidential and which you'd rather other people kept out of. **SecureDrive** is a great idea, mounting a named folder (which can contain anything, including more folders) as an extra disk drive. This appears to other

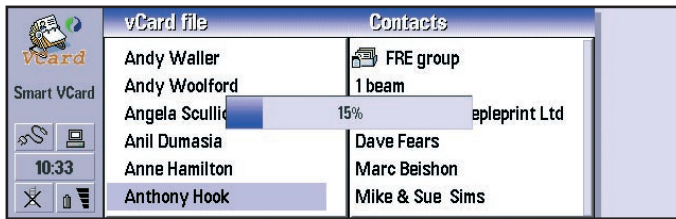
Nokia 9200 series applications in the normal way, and you can paste, open, save and create files as usual. One press of SecureDrive's 'Lock' button though, and the disk is locked down (using 256-bit RC6 ECB encryption) and hidden away. To a connected desktop machine, or to someone looking through your MMC card, the new 'disk' appears as an unopenable binary file. What a great idea. \$25, from [www.symbianware.com](http://www.symbianware.com).

## vCard specialist

So you'd like to get all your contacts from another handheld into a Nokia 9200 series communicator? It's all very well the pundits glibly claiming that you can do the job through synchronization with Microsoft Outlook, but there are still things to go wrong, not least of which is that trying to import a file containing multiple vCards (e.g. 'contacts.vcf') into Outlook just doesn't work. And even if you find a way of finally importing some contact details, the chances are that Outlook's non-standard field mapping

Creating extra,  
encrypted disks  
in SecureDrive





Importing a set  
of Palm contacts  
into a Nokia  
9210 using  
SmartVCard

will see some contact details omitted. And that's before the PsiWin-derived Nokia PC Suite has had its stab at conversion to the communicator.

One answer is to handle the 'contacts.vcf' file directly on the Nokia, bypassing the complexities of Outlook and the uncertainties of PC Suite altogether. **SmartVCard** is a minimalist utility with just two functions: the import and export of vCard files into and out of Contacts. Simply press 'Import' and choose a .vcf file. It does take a while though—a typical set of around 500 contacts took over 15 minutes. \$7, from [www.symbianware.com](http://www.symbianware.com).

## Not ready yet

A new web browser is always news on any computer platform, given the amount of time most of us spend on the Internet these days. **NetFront 3.0** is a newcomer to Symbian OS (both for the Nokia 9200 series and the newer Series 60 devices), based on previous versions of NetFront embedded in some mobile phones and consumer devices. Its main claim to fame is that it supports a wider set of tags and formatting, including HTML 4.01, XHTML 1.1, DHTML, CSS—you get the idea. There's also the multi-windowing found in the Nokia 9210i browser (a

rebadged version of Opera) and some Javascript support.

All of which sounds perfect until you start to use NetFront 3.0 in anger. Like Opera, it's a memory hog, needing over 3MB of free execution memory to load up even straightforward pages. In reality, you're likely to soon come to a grinding halt while browsing for real. Worse, NetFront stalled on the simplest Javascript-based shopping site we could think of, a site that the default 9210 browser handled perfectly. To be fair to the developers, they do label NetFront 3.0 as 'beta' software, but the current version is too memory-hungry and too flaky to use at all. We'll report back if and when NetFront improves. Price TBA, from [www.access-netfront.com](http://www.access-netfront.com).

*(Note: we tried to take a screenshot, but there was not enough memory left after the beta NetFront browser had taken its share!)*





# Pocket PC SHORTS



*Some of the most interesting new software additions for your Pocket PC handheld or communicator...*

## Agenda power...

After our look at advanced Pocket PC calendaring solutions in the last issue, and following our comments that the two main contenders are in fierce competition, both have issued significant new upgrades. Agenda Fusion version 4.9 adds the ability to manage icons directly from the handheld and dial contact



*Agenda Fusion now allows easier icon editing*

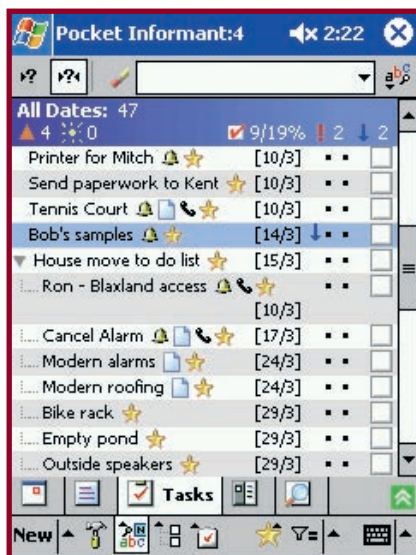
numbers via Bluetooth and infrared, as well as DTMF. There's also new compatibility with F-Secure's encryption software and improved synchronization of task reminder times. \$30, from [www.developerone.com](http://www.developerone.com).

## ...and a new Informant

Not to be outdone, Pocket Informant has now progressed to version 4, with lots of enhancements, including more flexible handling and grouping of tasks, an improved interface for better navigation, a redesigned and more powerful template system and better overall speed. \$25, from [www.pocketinformant.com](http://www.pocketinformant.com).

## ...and a brand new PIM

As an alternative to manage your calendaring requirements, the brand new PocketDay shows some promise. It lacks the sophistication of either Agenda Fusion or Pocket Informant, but if you need something just a little more powerful than the PIM software that's built into your Pocket PC then PocketDay is worth a look. The version (1.0) that we tested was rather sluggish in operation and crashed at regular intervals, but



*Pocket Informant 4 adds many new features*



*PocketDay, the new PIM in town*

as the program's author explains in the documentation, further development will be driven by user interest and feedback. Version 1.0 offers configurable day, week and month views, and allows tasks to be shown in all calendar views. \$15, from [www.tirsch.com](http://www.tirsch.com).

## Yet another checklist?

The Pocket PC world is awash with to-do list/shopping list managers, and although Checklist is by no means one of the most sophisticated, this recent port of the popular Palm OS title is both well thought out and simple to use, making it easy to manage multiple lists, with optional priority settings and a note field for each entry. Lists can be purged of completed (checked) entries, filtered to show only checked or unchecked items, sorted, or even rearranged manually

to suit your own whim. Lists can easily be reused, and checked/unchecked



*Creating reusable lists with Checklist*

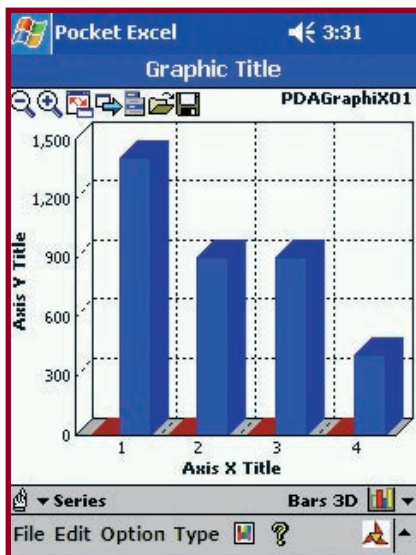


**PhatSpell—the universal spell checker**

items can also be copied to a new list, a rare but handy feature. Overall, a good general purpose list manager. \$15, from [www.handmark.com](http://www.handmark.com).

## Universal spell checker

Pocket PC provides nicely integrated spell checking for Pocket Word, but for all other applications you have to manage without—until now. PhatSpell adds an impressive 98,000 word English spelling dictionary that runs in the background, bringing interactive checking to virtually any application that allows text editing. The package includes 10 dictionaries for a total of eight languages, including both British and US English. The only downside is that if you elect to have suggested corrections appear in a pop-up window rather than a full-screen PhatSpell dialog, the

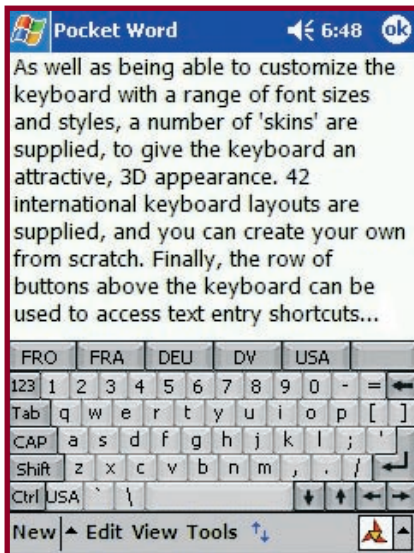


**Graphs for Pocket Excel—PDAGraphiX**

window often obscures the word you're trying to correct. Still, an excellent idea, and a worthwhile addition to every Pocket PC user's software arsenal. \$20, from [www.phatware.com](http://www.phatware.com).

## Those missing graphs...

Frustrated that you can't create graphs in Pocket Excel? PDAGraphiX adds a new charting menu to the spreadsheeting program, with the ability to create seven different chart types from a selected range of cells. The charting options are by no means comprehensive in this first version (bar, stacked bar and line graphs in 2D and 3D, plus 3D pie charts), but there's a good range of configuration options to hand. Apart from the standard facilities for adding titles, axis labels and annotations, charts can be zoomed and rotated, and exported as



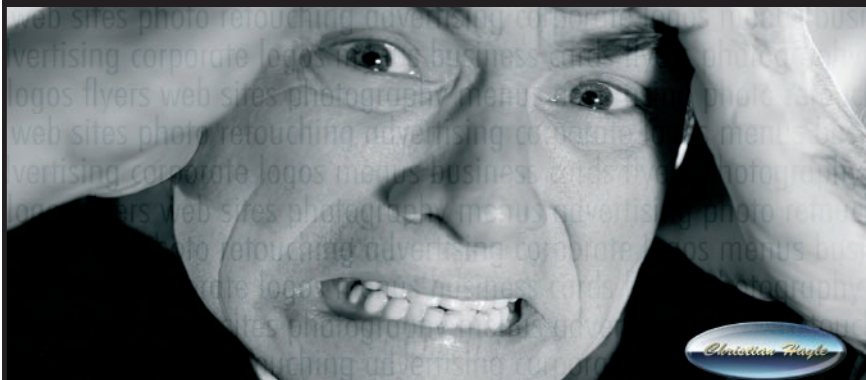
*TopKey—well worth a look for QWERTY fans*

attractive BMP files as well as saving within the PDAGraphiX application itself. An exceptionally well-polished application. \$10, from [www.pdaadvanced.com](http://www.pdaadvanced.com).

## Multinational keyboard

The built-in Pocket PC keyboard is perfectly functional as far as it goes, but **TopKey** goes so much further. As well as 42 international keyboard layouts (including Dvorak), six of which can be switched between at the touch of a button, you can even create your own custom layouts from scratch. Add in plenty of configurability, with themed 'skins' to add subtle colouring to give keys an attractive, 3D appearance, and this becomes a genuinely worthwhile alternative to the standard offering. The final enticement comes from a predictive input system that offers three suggested words that appear in the bar above the keyboard as you type. The suggestions dynamically change as you input more letters, and the system cleverly optimises itself to learn your most frequently used words. £20, from [www.pdamill.com](http://www.pdamill.com).

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# A CLOSER LOOK

REVIEWS REVIEWS REVIEWS REVIEWS REVIEWS REVIEWS REVIEWS REVIEWS

## Star Ratings:

★★★★★	Excellent
★★★★☆	Good
★★★☆☆	Average
★★☆☆☆	Fair
★☆☆☆☆	Poor
☆☆☆☆☆	Dismal

## Interpreting reviews

**Quality:** the Quality star rating reflects how well the product works, whether it includes all the features you'd expect, whether the interface is consistent and easy to use, and in data-based products also reflects the quality of the information contained in the program.

**Value:** the Value star rating reflects the value for money of the product, taken within the context of what the program (or other product) does. Therefore a simple utility program will be rated differently to a sophisticated application at the same price.

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## Palm Zire 71

A strange hybrid of a handheld, the Zire 71 looks rather like a shiny HP iPAQ from the rear and an old Handspring Visor from the front. There's also a built-in camera and headphone socket, as included in recent Sony CLIEs, and yet the name on the front is Palm. This is the latest in its 'consumer' line (the 'business' line being the Tungsten brand).

Wading in with the single biggest new feature, the Zire 71 features a low resolution (640x480) digital camera which gives similar results to those in recent Symbian smartphones. Once the novelty of snapping anything and everything has worn off, you'll probably be disappointed by the image quality, which isn't good enough for printing at any resolution and barely adequate for images destined for web pages.



The excuse for cameras in smartphones is that the images are for including in fun MMS messages to other users, but you can't do much with the Zire's photo output except HotSync to the desktop and deal with it there. Given that MMS isn't an aim, we'd have liked to have seen a much higher resolution camera.

Photo integration with Palm Desktop is exemplary though, with a dedicated Photos module in the latter that not only allows previewing of captured images, but also cropping, enhancing and (strangely, given that there's no flash) red-eye removal.

The Zire 71 weighs exactly 150g (5.3oz) and feels just right in the hand, with curves and slants everywhere, in two-tone blue and chrome. The chrome part is actually a sliding 'sled' over which the main unit slides—pushing the Zire's body upwards reveals the tiny camera lens on its back and a complementary, recessed shutter button on the sled's front surface. The action of sliding the Zire 71 open automatically fires up the Photos application in capture mode.

There's been talk of this device being the 'multimedia' Palm, but a low resolution camera alone isn't enough to bring the Zire 71 within reach of a modern Pocket PC or Symbian communicator. There's no microphone or voice recorder application for a start, video playback is only possible with a piece of bundled third party software, and audio output through the headphone socket suffers from the same low volume as the Palm Tungsten T.

A joystick replaces the traditional Palm scroll buttons, though a Tungsten T-style



*The Zire 71's Photos application, here in thumbnail mode*

navigator pad would have made more sense, especially for game players. The joystick is too sensitive, harder to manage, and somehow just doesn't feel right for action games.

The Zire 71 thankfully has the same Universal Connector as the rest of the Palm range (barring the ultra-budget original Zire), so cradles and other accessories should fit nicely. The SD expansion slot is at the Zire's top, but an apparent design oversight means that an inserted card's corner sticks out by a fraction. This isn't a problem, but seems a pity given the efforts elsewhere to keep to sleek and rounded profiles.

The display is 'transreflective', similar to that in recent HP iPAQs and new Toshiba Pocket PCs, and is gorgeous in all indoor lighting conditions—much crisper and whiter than that on the Tungsten T. Outdoors in direct sunlight, the Zire's display is reduced to the same pastel, washed-out state as other PDAs, but at least it's still readable.

There's a familiar looking Graffiti area, though the Zire 71 is new enough (Palm OS v5.2.1) to come with 'Graffiti 2', a modified version of CIC's Jot (see feature on page 91). The rules for upper and lower case characters differ from the original Graffiti, and of course most of the character shapes are different as well. Once you get used to Graffiti 2, it's no slower than the original, though both pale in comparison with thumb keyboards (as in the Treos and Tungsten W and C), or indeed with specialised stylus input utilities such as Fitaly. Interestingly, Graffiti 2 comes with a Preferences option to allow writing anywhere on the screen, which also makes it possible to echo stylus strokes on the LCD display, so maybe we'll start seeing Palm OS models without traditional Graffiti areas in the future.

In addition to the usual Palm OS application set, there's a fair amount bundled on the Zire 71's two CDs. Unusually (for Palm) there's no Documents To Go, but then the Zire is unashamedly marketed at 'fun' use rather than business. And anyone who needs Office compatibility can buy one of at least three different third party add-on suites. The Zire 71 CDs include Acrobat Reader, powerOne Personal calculator, Palm Reader, Versa-Mail, Audible Player (a low quality sound player optimised for speech), RealOne Player and the truly excellent Kinoma Player/Producer (see also 'Sound & Vision' on page 73). The fast 144MHz TI OMAP 310 ARM processor means that both MP3 and video clip playback is smooth and generally impressive.

Music and video eat memory, of course, and despite having 16MB of main



*New users, start here!*

memory (of which just under 14MB is available), almost everyone will need to add a sizeable memory card. Luckily, SD and MMC card prices continue to fall dramatically, so the lack of a card in the Zire 71 bundle is not a problem.

Battery life is pretty good, with a lithium polymer 900mAh battery and an estimated week's use (music playback excepted) on a single charge.

Yet again, we see a redesigned Preferences application—Palm can't seem to leave this alone. The obvious new section is 'Color Theme', with around 40 themes, such as 'Purple', 'Rose', 'Spring', 'Steel', etc. All each theme does is alter the basic system text and background colours, but it's still nice to have the choice.

The Quick Tour application is a nice idea, well put together and a first step towards on-the-Palm training. It consists of three modules ('Feature Overview', 'Camera Tour' and '5-way Navigator Tour'), each of which has a number of nicely photo-illustrated and animated screens.

Back on the Palm Desktop there's another new module, Quick Install, which simplifies the installation of downloaded software (just drag a ZIP file into it) and new MP3 music files, which has a much clearer interface than the old Install tool.

Despite its hardware experimentation of late, Palm seems reluctant to mess with the operating system too much, and such things as files and folders are still largely hidden from the casual user. With large expansion cards, attachment-aware email, MP3 music and compressed ebooks all very much in vogue now, surely an official File Manager application is needed now, more than ever?

Still, it would be churlish to complain too much about the Zire 71's few shortcomings. After all, there's a lot here that we'd have given our right arm for a few years ago, and Palm is genuinely trying to innovate at the moment. The Zire 71's numbering would tend to indicate others in the range are on their way—the next one could be a real stunner.

*Steve Litchfield*

## Palm Zire 71

**From:** All major handheld dealers

**Contact:** [www.palm.com](http://www.palm.com)

**Price:** RRP £250 inc. VAT

Quality: ★★★★★☆

Value: ★★★★★☆



## Palm Tungsten C

No matter how you look at it, the Palm Tungsten C represents quite a leap. The Tungsten T was a sizeable step forwards from its m515 predecessor, with its novel, compact design, fast ARM processor and a greatly improved colour screen. The Tungsten C ups the ante further, with an even better (transreflective) screen, a groundbreaking 64MB of internal memory, Pocket PC-style 400MHz XScale processor, and 802.11b Wi-Fi wireless networking for good measure.

This string of impressive specifications makes the Tungsten C sound like a real winner and, barring a few caveats, it is. The worst news is that a few of those caveats might just be enough to steer you away from the 'C', perhaps back towards a Tungsten T.

The most striking thing about the unit at first glance is that the traditional Graffiti input area has been replaced with a miniature QWERTY keyboard. Don't worry though—despite its small size the keyboard is well engineered, and the keys are clearly labelled, at least considering the limited space available. The T|C keys provide a good amount of travel and surprisingly good tactical feedback—similar to the keyboard on the Handspring Treo range, and in our opinion considerably better than on recent Sony models. With only a few minutes of practice we were able to beat Graffiti input speeds by a considerable margin, without too many errors along the way.

It may appear that Palm is taking a substantial risk by suddenly jumping to

keyboard input for its flagship model, but closer inspection reveals the presence of Graffiti 2 as well (see page 91). Unlike the original Graffiti, this new version allows characters to be scribbled directly onto the main screen area, removing the need for a dedicated area at the bottom. It's also possible to use a combination of keyboard and Graffiti 2 input at any time, providing the flexibility to cater for all tastes.

Although pleasantly chunky and comfortable to hold, the 'C' is bulky and heavy by Palm OS standards. Almost as big as an iPAQ 3950 Pocket PC and the same weight, squeezing this much power and functionality into the beautifully tiny form factor of the earlier Tungsten T clearly wasn't an option.

Another disappointment is that the superb metal casing of the T|T has been replaced with pale silver plastic on the T|C, depriving it of the quality feel of its predecessor. The five way 'Navigator' button is the same style as the T|T's, but has been shrunk down to little more than half the size due to limited space. This makes navigation noticeably more fiddly, and getting the central push-button to register reliably is best achieved with the tip of a fingernail.

Construction quality is otherwise good, if unremarkable, with a solid overall feel to the device. It's nice to see that the T|T's clip-on plastic screen cover has been dropped, though the m500-style flip leather cover (that engages into a slot down the left side of the unit) still doesn't quite feel quite right for a £400 handheld. The cover presses strongly onto the main keyboard, but is designed to avoid the main hardware and power

buttons, ensuring that the unit is not switched on accidentally.

Expansion is via a Palm-standard SDIO slot in the top and a Universal Connector for the supplied USB HotSync cradle, with a 3.5mm jack for (optional) headphones to take advantage of the MP3 playback facility.

Switching on and navigating around applications for even a short period reveals this to be the snappiest handheld yet seen on any platform, with most common operations being executed in an instant. Already shown to a lesser degree by the Tungsten T, the Tungsten C reveals just how much more efficiently Palm OS 5 makes use of processor power than an equivalent Pocket PC 2002 device running essentially the same hardware—for many operations the difference is staggering.

Despite Palm OS 5.2.1 swallowing a hefty 13MB of the 64MB internal RAM for its own use, the 51MB that remains will allow many users to manage without having to buy an add-on SD memory card.

One would think that leaving the expansion slot free would be particularly useful for some Tungsten C users, due to the absence of built-in Bluetooth. However, the Palm SDIO Bluetooth card will not in fact work with any Palm OS 5 devices at present. It seems a little unfathomable that Palm has elected to incorporate Wi-Fi but omit Bluetooth, as the two technologies most certainly aren't mutually exclusive, despite some overlap. The lack of Bluetooth leaves corporate users on the move—undoubtedly the T|C's target audience—without the



ability to access the Web, email, SMS messaging or automated phone dialling via a Bluetooth phone. Infrared is thus the only option to connect to a mobile phone while on the road—hardly a cutting edge solution.

As with Bluetooth, a suitably-configured Wi-Fi setup allows users to synchronize with a desktop computer without recourse to a cable connection (though Apple Macintosh users should note that the current Palm Desktop for Mac doesn't support Wi-Fi HotSyncs—only Bluetooth). Wireless Internet connections are of course made possible when in close proximity to one of the Wi-Fi 'hotspots' that are slowly beginning to appear around the globe, but these are few and far between at present. Probably the biggest practical benefit of Wi-Fi for handhelds at this time is the ability to access the Web and email while in a suitably-equipped office (or even domestic) environment, but away from a desk. Setting up the Tungsten C to operate with our Apple AirPort Wi-Fi

network took less than a minute and worked faultlessly every time, at a range of up to 7-8 metres.

Software included with the Tungsten C incorporates almost everything that comes with the Zire 71 (see page 29), apart from the additions that relate to the Zire's integral camera. The new VersaMail 2.5 email client (see page 10) is built into the T|C's ROM, together with the Palm Web Browser application, Documents To Go version 5 and the basic Palm Photos application for viewing images.

Disappointingly, the current version of the Web Browser application comes unstuck all too easily, limiting its use and arguably detracting somewhat from the benefit of having Wi-Fi built into the device. Although a number of web pages and sites are rendered very well, any that include pop-up windows simply throw up an error message stating that 'Pop-up windows are not supported by this version of the Web Browser'. This, ironically, includes parts of Palm's own web site, and given the popularity of pop-up windows in modern web sites, this single omission turns web browsing on the T|C into a rather hit-and-miss affair.

Security on the T|C has been beefed-up all round, with a VPN Setup utility that allows access to secured networks using standard protocols, and enhanced on-device security. The latter takes the form of a cut-down version of TealPoint Software's excellent TealLock ([www.tealpoint.com](http://www.tealpoint.com)), which adds a 'Quick password' option, extra password masking choices and built-in encryption of selected data.

An additional 'Software Essentials' CD includes a few useful extras, with the highlight being a copy of Bachmann's PrintBoy Standard Edition ([www.bachmannsoftware.com](http://www.bachmannsoftware.com)), which allows basic printing via infrared, Bluetooth or across a Wi-Fi network.

If you're looking for a top-notch Palm OS handheld with plenty of memory and a great screen then the Tungsten C is good value, even if you don't need Wi-Fi. It's not the design classic that the Tungsten T was, the lack of Bluetooth is a pity, the keyboard won't be to everyone's taste and the built-in web browser is in sore need of an update. If none of those factors are showstoppers for you, in many ways this is the most desirable Palm handheld to date. And, when it comes to raw power, the T|C is currently top dog.

*Steve Clack*

## Palm Tungsten C

**From:** All major handheld dealers

**Contact:** [www.palm.com](http://www.palm.com)

**Price:** RRP £395 inc. VAT

**Quality:** ★★★★★

**Value:** ★★★★★



## Palm Tungsten W

We all know, deep down, that one day all PDAs will have integrated telephony. The Handspring Treo, O<sub>2</sub> XDA and Nokia 9210i are good pioneers of the concept, but none of them seem to be achieving stellar sales figures. Partly this is down to some serious weakness or other (e.g. the Treo's screen and lack of expandability, or the 9210i's size and weight) and partly it's down to the premium prices involved. The Tungsten W is Palm's take on the communicator concept and, although capable, it unfortunately falls down in exactly the same way. The main flaw here is having to use a headset in

order to make or receive voice calls, and the price is a fairly exorbitant £500.

Palm is pushing the 'T|W' as a mobile data device rather than as a true voice communicator, but if your phone SIM card was in a separate telephone then you'd need to get another just for the Tungsten W.

So, using the T|W as your main phone, you'll have to keep the supplied headset plugged in all the time, or at least very close at hand. Palm plans to market a flip cover with integral earpiece and microphone, but this is hardly a high-tech solution.

Physically, the T|W is almost identical to the Tungsten C, reviewed on page 32, and most of the same comments on size, feel and build quality apply. There are a few external differences, such as the SDIO slot being on the right-hand side of the unit (which may cause problems when used with cards that protrude beyond the standard SD form factor), and the presence of a stub phone aerial and SIM card bay (on the T|W's back).

Despite the physical similarity, the Tungsten W's computing innards are very different, being based around the relatively ancient 33MHz Dragonball VZ processor, with 16MB of RAM and running Palm OS 4.1. In fairness to Palm, this is still enough for the unit to be quite useable, and this processor was fairly standard fare when the T|W was conceived a year or so ago. It's just a pity that the telecommunications approval and testing process has taken so long, as the device now seems rather under-specified all round. OS 4.1 is still a great PDA platform, although there's





no digital sound recording or MP3 playback, as seen in the Tungsten T.

The Tungsten W is going to live or die on its strength as a data communications device, and this part is going to be up to the network operators in whichever country you live. They are the only ones who can sell you a T|W, and it's up to them to provide a customised MultiMedia Card in the box, with the Web Pro browser set up to their home page and with WAP and email access settings pre-configured. Such a card wasn't available for review, but it sounds like a good scheme and should get new users on each network off to a flying start. Email is catered for with the (now) standard VersaMail in ROM, although this is only the more basic version 2.0, and many users have reported incompatibilities with using the newer 2.5 version on Tungsten W handhelds. Still, the software will cope with most basic email duties while on the road.

Apart from the reliance on a headset, the voice side of things is pretty good, with the same Quick Connect integration with Address Book as the Tungsten T (which uses Bluetooth to activate a mobile phone). Palm's Mobile application is the main phone interface, and is similar to that on the Handspring Treo, with separate screens for keypad, call options and call history.

We liked the instant flexibility of six customisable phone profiles, each of which can have different settings for volume, ringtone, vibrate and divert.

Battery life is one of the outstanding features of the T|W. The 1500mAh battery (partly explaining the 185g/

6.5oz weight) is the largest in any Palm OS handheld, and boasts a standby time of 250 hours and a talk time of 10 hours. The HotSync cradle is the only way of charging this thing, but with a battery life like that you shouldn't need to pop it on the cradle more than once or twice a week.

The 'W' completes Palm's Tungsten line-up: one Bluetooth, one Wi-Fi and now one wireless. Given that the three technologies are essentially complementary, surely it can't be long before we start to see devices which have all three, and which intelligently switch from Bluetooth to Wi-Fi to GPRS, depending on what you're trying to network with and how far away you happen to be.

In the meantime, if you're mainly interested in mobile email and Internet access then Palm's Tungsten W manages to out-gun the Handspring Treo fairly comfortably, with a far better screen and an expansion slot. Don't be too hasty to use it as your main voice phone though—the Treo and Nokia 9200 series are far better communicators, with a true 50-50 mix between phone and computer.

*Steve Litchfield*

## Palm Tungsten W

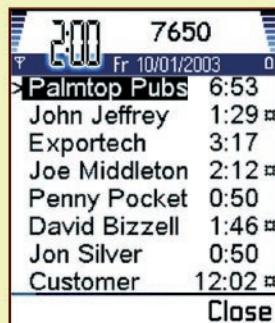
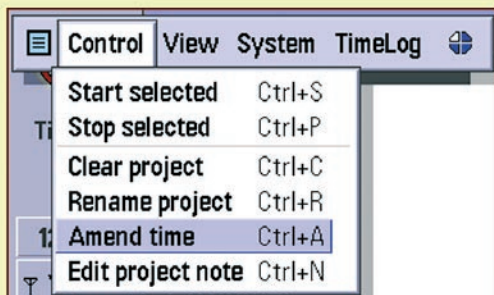
**From:** Major network providers

**Contact:** [www.palm.com](http://www.palm.com)

**Price:** RRP £499 inc. VAT

Quality: ★★★★★☆

Value: ★★★★★☆



## Introducing TimeLog for Symbian communicators and smartphones

(Nokia 9210, 9210i, 9290, 7650, 3650 and other Series 60 devices)

- Start and stop timers for up to eight different projects, with time for the current period shown while active and cumulative totals shown at all times.
- Customer/project names can be edited as required and their timers cleared down or reset as necessary.
- A 40-character note field allows for additional text and reminders, if needed.
- 100% fully working shareware, no restrictions or machine locking whatsoever.
- Leave TimeLog running and switch to it quickly with a unique system hotkey or using the communicator's 'Open programs' list.

Download from <http://3lib.ukonline.co.uk/>  
Produced by 3-Lib, 0797 9253213

## Sony CLIE TG50

A slight departure from Sony's usual CLIE handheld designs, the TG50 is perhaps closest in overall functionality to the Palm Tungsten T (reviewed in the last issue), incorporating a miniature keyboard in place of the usual Graffiti input window.

Almost the same external dimensions as Sony's T600 series models, the TG50 uses the standard square 320x320 pixel hi-res Sony screen, but with no Graffiti area beneath it. Instead, the lower 40% of the device frontage is taken up by a tiny QWERTY keyboard.

As well as a fast 200MHz Intel PXA250 XScale processor, making it somewhat faster than the Palm Tungsten T, this is the first mid-range Sony unit to incorporate integral Bluetooth, and the TG50 uses a similar setup routine to the Tungsten T,

making it a breeze to get most Bluetooth phones paired with the handheld for easy Internet access, phone dialling and SMS messaging.

There are a few specific features of the TG50 that may cause you to either love it or loath it. Firstly, the flip-up aluminium screen cover naturally offers far more protection than a conventional leather slip case, but sadly it can't be removed. Coupled with the fact that it only flips open by around 120° rather than folding neatly behind the back, you end up with something that appears to the onlooker rather too much like Captain Kirk's communicator. Also, the cover itself, or at least the hinges, tend to feel a little prone to damage. If someone were to walk into you with the device in the open position, it's almost certainly possible to snap the lid/hinge mechanism right off.



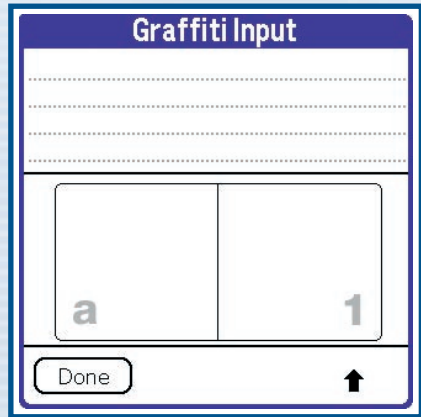


Secondly, in common with the latest Handspring Treo range, high-end Sonys and the Palm Tungsten C and Tungsten W, the TG50's keyboard is really quite tiny. If you're hoping to beat your Graffiti input speed by moving to a device such as this, you'd be well advised to try one out before committing to a purchase. If you have big fingers then you've probably got no chance of getting along with it and, even then, some people will find such a minute keyboard more frustrating than persevering with Graffiti.

Despite being a similar size to the Palm Tungsten T and W keyboards, we found the one on the TG50 harder to work with, due in part to the square rather than lozenge-shaped keys, and to the fact that the keys on the Palm units protrude from the casing more, making them easier to locate. Helpfully, the TG50 keys all illuminate as soon as you start typing, though this doesn't light up the alternative keyboard legends (such as numbers and symbols), rather precluding the keyboard's use in dim lighting.

If you prefer Graffiti, there's a dedicated button next to the keyboard that pops up a virtual Graffiti window on-screen. It's not ideal for anything other than occasional use though, as the window takes up at least 60% of the screen area, leaving only four lines of text visible.

Sony handhelds all seem to be designed for people with good eyesight and small fingers, and this is particularly evident on the TG50, from the spacing of the tiny keys to the minuscule legends that appear adjacent to them. This even extends to the screen fonts used in Sony's (otherwise excellent) CLIE Launcher



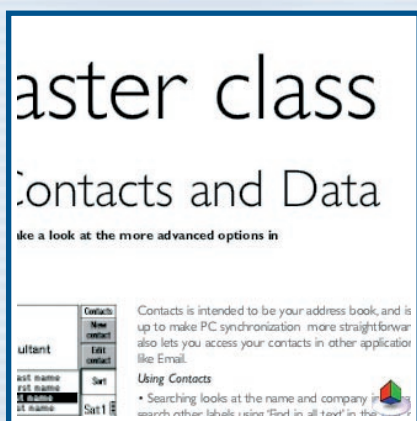
*Graffiti input via the TG50's pop-up window*

utility, which provides an attractive and effective means to start and browse installed programs.

The Up/Down scroll button on almost every Sony handheld has been too small and fiddly for comfortable use, and the TG50's is the worst yet, barely moving at all when pushed either up or down, and being generally unpleasant to use. Given Sony's pedigree in PDA design, this remains one of the few longstanding gripes in an otherwise very desirable range of handhelds.

If you're largely happy with the cover and keyboard arrangement, and the now rather pedestrian 16MB memory complement, there's otherwise a lot to like about the TG50. You get Sony's standard Jog Dial arrangement for ultra-convenient scrolling, a decent MP3 player built-in, polyphonic alarm sounds, voice recording, Memory Stick expansion and a bundled software package that gets more comprehensive with every new Sony model.





### *PicSel Viewer does an excellent job...*

The TG50 comes pre-loaded with the standard Palm OS (version 5) software suite, plus the usual Sony applications for viewing and manipulating images, movies and sounds. There's also the standard issue Sony file manager application, infrared remote control software for your audio/visual components, and a fairly basic but effective SMS text messaging client.

To round things off, PicSel Viewer is a worthwhile new addition to the package, and allows viewing (but not editing) of Microsoft Word documents, Excel Spreadsheets, PDF files, HTML and a range of image formats. The somewhat unconventional but graphically rich interface takes a little getting used to, but the program does an excellent job of rendering complex documents (even those containing images), and the built-in file browser application allows any supported file type to be accessed from any location in memory or storage card, including files sent from other handhelds via Bluetooth or infrared.

The font rendering technology used by PicSel Viewer makes text exceptionally clear to read, though the program always maintains the original document page formatting rather than reflowing to the smaller handheld screen. Zooming and scrolling to navigate a large document in this way is often a frustrating experience, but the ability to view original formatting accurately goes some way to balancing this downside.

Aside from the much bulkier Sony NZ90 (to be reviewed in the next issue), the TG50 is the only current Palm OS handheld that combines Bluetooth wireless capability with a physical keyboard for input. If you're looking for this particular combination then the TG50 is the machine for you, otherwise the Palm Tungsten T offers Bluetooth in a more compact package with 'conventional' Graffiti input instead.

Quirks aside, the TG50 remains a fast and powerful Palm OS handheld with a lot of functionality at a reasonable price. If you get to try one out for yourself and find that you like the keyboard, you most certainly won't be disappointed with the TG50's other capabilities.

*Steve Clack*

## **Sony CLIE TG50**

**From:** All major handheld dealers

**Contact:** [www.sonymstyle.com](http://www.sonymstyle.com)

**Price:** RRP £300 inc. VAT

**Quality:** ★★★★★☆

**Value:** ★★★★★☆

## Nokia 3650

A quick glance at the Symbian-powered 3650's specifications might lead you to dismiss this new Nokia smartphone as just a 7650 (reviewed in issue 1) with an MMC expansion slot. In fact there's rather more that has improved, with the only real downside being the obviously plastic construction and much cheaper feel. This in turn can be easily forgiven once you discover the price—the Nokia 3650 is starting off at as little as £50 with an airtime contract, £250 without.

These price points are quite staggering when you consider that the 7650 launched last year at £380 with contract and £600 without. Think about this a moment longer. If your phone contract is up for renewal anyway, you can now get a state-of-the-art, camera-toting, Bluetooth-equipped, GPRS tri-band smartphone, based on Symbian OS and

completely expandable, all for around £50. The 7650 has also come down dramatically in price, but not to quite the same level, due we suspect to the higher build quality and construction costs.

So, to the detail. The 3650 is a one-piece unit (130g/4.6oz and 130x57x26mm/5.1x2.2x1.0"), plastic but very robust, with a novel circular keypad that's sure to polarise opinion. There's no good reason for the new layout, and the already cumbersome phone-style T9 input just becomes even more frustrating while you learn the new key positions. Worse, the bottom of the keypad ('5' and '6' keys) is so close to the 3650's bottom that one-handed use can mean pinching the device rather precariously at times. One-handers will also be hit by the ultra-smooth curve of the 3650's back. This has the unfortunate side effect of making it almost impossible to press the 'Cancel' key (or, for left-handers, the 'text mode' key) without the unit being squeezed out of your hand.

The 3650's camera lens is inset into the unit's back, without the sliding protection that the 7650 has. This may not be a huge problem though, as both the lens and the 176x208 pixel, 4096-colour screen are covered with tough transparent plastic that should see the unit coming through most mishaps unscathed.

On the left of the case is a large infrared port, and for most people this will be the main mode of connection between a 3650 and the PC desktop. There's no direct cable solution, unusually, but USB infrared adaptors are quite cheap now and work well. From Nokia's point of view it means one less cable to ship in





*Installing third party software is easy*



*Managing an MMC expansion card*

the box. From the user's point of view it's one less cable to carry around or lose.

Bluetooth is the other main connectivity option, should your desktop or laptop be Bluetooth-equipped. You can also use the 3650 as a Bluetooth (or infrared) modem in conjunction with a dedicated PDA.

Unusually (again), the single MMC expansion slot sits beside the phone SIM card and is only accessible by taking the back off and removing the battery. The typical 3650 owner is unlikely to do much card-swapping though, as the unit is a far cry from Symbian workhorses such as the Psion 5mx and Nokia 9200 series. Nokia generously supplies a 16MB card with each unit, preloaded with promotional video clips.

Just as in the Nokia 7650, the user interface and core applications are Nokia's own Series 60, running on top of Symbian's fully multi-tasking operating

system and libraries. There have only been a few minor tweaks to Series 60 since the 7650's launch, and the detailed descriptions and screenshots in issue 1's review still apply.

There are a few new applications though. 'Memory' provides functions relating to the MMC card, such as backing up the main phone memory, reformatting the card or (usefully) password protecting it. This last function does a fabulous job, with protected cards being totally unreadable on other computers.

You'll have gathered from reviews of other smartphones that built-in cameras tend to be only suitable for 'fun' use. This is no exception, with its 640x480 pixel captured images being poorly focussed and poorly JPEG-encoded. So, think of the camera as an extra rather than a core feature. Something for thumbnail snaps for your Contacts store or for sending impromptu 'atmosphere' photos to family and friends via email or MMS.





*Video recording—don't adjust your eyes...*



*Browsing a web page on the 3650*

Built into every 3650 (and available for download for 7650 owners) is 'Video recorder', recently updated to handle an audio soundtrack as well, but don't get too excited. The clips are taken at a truly minuscule 128x96 pixels, in MPEG-4 format. The idea is to fit a 10 second clip into the 100K limit of a MMS message. It achieves this, but the footage appears blocky even on the small handheld screen. Interestingly, videos are played back using a version of RealOne Player (and, on the desktop, in a supplied Multimedia Player utility).

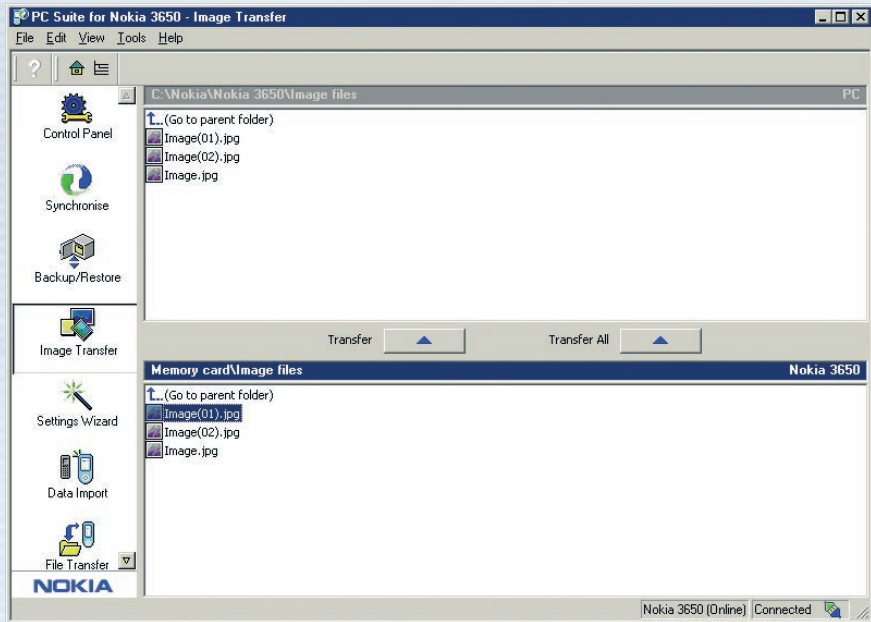
Finally, kept rather quiet by Nokia but very interesting, there's a full web browser in the 3650, hidden behind the same 'Services' icon that only led to WAP functions in the 7650. It's true the browser is very basic by desktop standards, and sideways scrolling is required on many pages in order to see all the content, but having access to real web pages across the wider Internet is

more useful and brings the Series 60 platform rather more up to date. As with the Nokia 9200 series, running a full web browser leaves the unit extremely short of memory, as you'll find out if you try to run another application at the same time.

GPRS performance is pretty good, with a maximum throughput of 40kbps if the network will allow it, so you can leave images turned on most of the time without slowing things down too much.

Vital to serious use of any handheld or smartphone is good integration with a desktop computer. In our review of the Nokia 7650 this software hadn't been finalised, but we can now report in full. 'PC Suite for 3650', though predictably for Windows PCs only, is quite impressive in places, with an attractive, intuitive and comprehensive interface. Outlook-style buttons down the left hand side lead to different modules, including Synchronise, Backup/Restore, Image





**PC Suite for 3650, presenting the smartphone in bite-size lumps to the novice**

Transfer, Settings Wizard, Data Import and File Transfer. There's some overlap between these functions, but Nokia is to be applauded for making each part work as a casual user would expect.

Hardened Symbian experts are best advised to work with PC Suite rather than trying to go behind its back, even if it is all a little frustrating. For example, the backed-up 3650 files aren't stored in 'plain' format and are only available individually or for restore purposes using PC Suite itself.

Unlike PC Suite for the Nokia 9200 series, which uses a proprietary Psion/Symbian link protocol, PC Suite for the 3650 (and 7650) uses Internet-standard TCP/IP to make the infrared or Bluetooth link to the desktop. For those of us using soft-

ware firewalls on our desktop computer, the use of TCP/IP means having to give 'Internet' permission for up to a dozen PC Suite components. Thankfully this is usually only a one-off task.

Unlike Palm OS and Pocket PC synchronization solutions, the Symbian PC Suite isn't terribly quick, with typical daily sync times of a few minutes and occasional backups taking ten minutes or more, depending on what you've been doing/installing. You're certainly not going to be synchronizing a dozen times a day, as other handheld owners often do.

Perhaps a result of 'continuing improvement' in its software, it's a little disappointing to find that PC Suite for 3650 won't work with the older 7650. Our solution was to synchronize each with a



different computer, which won't be practical for most people.

Back on the plus side, PC Suite seems to synchronize with just about every desktop PIM in existence, and does so without too much drama. It even imports PIM data directly from a backed-up Palm OS handheld. A 'Settings Wizard' lets you enter Internet and email details on the desktop rather than having to

type everything using the fiddly phone keypad.

Native Symbian applications are installed from SIS files on the desktop (or received by email, etc.) and it's also possible to download small Java (J2ME) programs directly from the Internet. Porting applications from previous Symbian platforms is proving fairly easy and there's already a thriving Series 60 software scene, including games, ebook readers, utilities and even an answerphone. Watch out for a Palmtop User special feature on Series 60 in the near future.

The Nokia 3650's battery life is good, with a quoted standby time of 200 hours. In practice, charging it every few days appears more than sufficient.

The claimed multimedia functions and low price should attract huge sales in the High Street, of course, although most purchasers will doubtless not dip deeper than playing with the camera and entering a few contacts and calendar entries. You now know better and, providing your use for the 3650 doesn't include much text entry, there's an awful lot of Symbian OS smartphone here at a very reasonable price.

*Steve Litchfield*

## Nokia 3650

**From:** All major Nokia dealers

**Contact:** [www.nokia.com](http://www.nokia.com)

**Price:** Around £50 with contract / £250 without

**Quality:** ★★★★★☆

**Value:** ★★★★★★

## Sony Ericsson P800

The Nokia 9200 series apart, the writing has been on the wall for long-term Psion fans ever since Symbian was formed. From the laptop-replacing functionality of the Psion Series 5mx and Series 7, we've finally ended up with smartphones with gadgets galore, but no spreadsheet, word processor or database. Not wishing to seem too ungrateful—the P800 is a fabulous communications and PIM device, there's lots you can do with it, and doubtless third party software will pop up to fill the gaps. But given that Symbian already owns its own spreadsheet and word processor, it's a real pity that they haven't been included in the Sony Ericsson P800.

At 117x59x27mm (4.6x2.3x1.1") and 148g (5.2oz), the P800 is almost identical in dimensions to the Nokia 7650 and 3650, the two smartphones with

which it most directly competes. However, the P800 costs at least £150 more and, although there are some clues below, it's not entirely obvious why people should fork out the extra money.

The most obvious difference is that Nokia's Series 60 is designed to be button-driven with one hand, whereas the Sony Ericsson unit has comparatively few buttons and a (50% larger) touch screen. User interfaces are very much a personal preference, of course, but having used both systems I'd rate them both equally usable. You can achieve a certain amount on the P800 with only one hand, but for anything complicated or to enter information you have to pop out the stylus with your other hand and start tapping.

Finished stylishly in attractive two-tone plastic, the P800 looks and feels good. The ugliest part of the design, the Ericsson R380-like button flip which pokes through onto the touch-screen below, is thankfully easy to remove. Given that 90% of the P800's functionality requires both a full screen display and a touch-screen, I'd imagine most owners would get rid of the flip.

The stylus itself is no more than a strip of plastic that clips onto the right hand side. In fairness, it's quite easy to take off and put back on again, but it weighs almost nothing and is a far cry from the feel of styli on most other handhelds. The stylus clip covers a Memory Stick Duo expansion slot. These cards are very new and still quite rare, but a 16MB card is helpfully included in the box to get you started. The use of this offbeat format is naturally down to Sony's involvement, being the inventors of the Memory



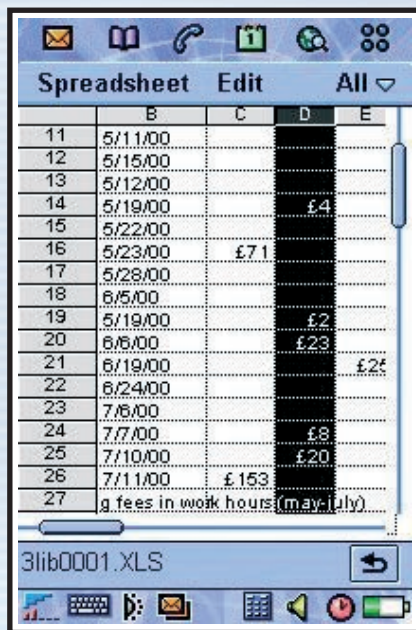




*Browsing the main Applications list*

Stick. Within applications that might need expansion space, the card simply appears as 'External storage', with a choice of application-specific folders.

Having removed the flip cover, the only remaining buttons are both on the upper right hand side, one for the P800's digital camera and one to start the built-in web browser. On the left side are a power button, infrared port and a unique five-way jog dial. Clicking this towards the front or back of the unit cycles through your chosen 'top 5' applications, while rotating it up or down scrolls or selects information on screen in more traditional fashion. Beside this is a socket for the supplied stereo headset, usable for both phone calls and multimedia listening.



*The document 'Viewer' in action*

Sitting in prime position on the P800's back is a recessed camera lens. This is similar to the cameras in competing smartphones, producing 640x480 pixel JPEGs at its highest resolution. Picture quality is higher than that on the Nokia 3650 (see page 41), with a choice of three JPEG compression ratios, giving some control of the trade-off between image size and quality. Maximum image size is around 90K, with about 100 photos fitting inside an empty P800's internal memory. The smartphone ships with 12MB, although as with other, similar devices you're best off storing anything of size on expansion card, leaving room for Symbian OS 7 and the web browser to work efficiently.



With the P800's button flip removed, there's the option of a 'virtual' flip, mimicking the original button layout on the LCD display. This makes it easy to dial numbers freehand, and provides a useful touch-screen lock to prevent accidental keypresses.

Back in 'PDA' mode, the 208x320 pixel interface is Symbian's new 'UIQ'. It's fairly intuitive, with five configurable shortcuts at the top of the screen plus one for Applications. As with Palm OS, this simply presents categorised selections of application icons ('Utilities', 'Games', etc.) Tapping on one switches to that program if it's already running in memory, or starts it up if this is the first activation.

Unfortunately, there's no way, out of the box, to switch between running programs, hiding the wonders of the fully multi-tasking Symbian OS from casual users. Third party utilities are thankfully starting to appear. Even the Nokia Series 60 system (on top of Symbian OS 6) has a prominent (and selectable) list of running applications, and UIQ feels clumsy in comparison. It's certainly much slower when trying to switch backwards and forwards between two programs that don't happen to be on the shortcut bar at the top. And there's no way to close down running applications manually in order to save memory.

In the style of Palm OS again, the underlying filing system is hidden away from the user, and applications get their own 'folder' system ('Business', 'Personal', etc.) allocated in both internal and external storage. Each application's folders are independent from those of all others, so for example you can't keep



*The P800 in 'virtual' flip mode*

pictures, audio and notes from a conference together in a named folder, as you could on Psions and the Nokia 9210s.

The 4096-colour display is readable under all lighting conditions, despite the absence of contrast and brightness adjustment. A status bar along the display's bottom includes both device information and extra shortcuts.

The on-screen keyboard works well when you're totally at rest, but is tricky to tap accurately while standing up or when on the move, when it's best to turn on the JotPro character recognition. This divides the screen into three, with lowercase letters recognised below the mid-point, uppercase letters around the mid-point and numbers above. As with Palm OS Graffiti, the system works



well once you've learned the character shapes expected, although you'll do well to exceed 10 words per minute. There's no option to recognise natural letter printing or cursive text.

'Message' is a fairly standard POP3/IMAP email client, with good configurability, even if it is all hidden away in the Control panel. Text and multimedia messages are integrated here, along with beamed-in files and objects. Images, video clips, audio recordings and stored documents can all be attached to new emails, and of course saved (and launched) from incoming messages.

'Contacts' is also standard fare, with a tabbed address book that should work happily for most people. Should you need to search for a contact, the excellent Find function will look for a string within the text of every field if necessary. As you'd expect, tapping on a phone number kicks off a call, tapping on an email address kicks off a new email, and so on. The fields are Outlook-friendly,

and you can add specific ring tones and thumbnail photos to each contact for easier identification when they call.

The 'Phone' application holds up to nine quick-dial slots and your call history, should you wish to redial a previously-used number or check the length of a call. 'Calendar' holds no surprises, with typical Agenda functionality and day/week/month views. Notes can be attached to entries, but not documents or other objects. Interestingly, the textual content of Calendar entries can be moved to the separate 'Tasks' (To do) application using a menu item, and vice versa.

'Internet' is an efficient and functional HTML 3.2, WAP, xHTML (etc.) browser. This works well for straightforward pages although there's no javascript support, ruling out most 'interactive' web sites. Tabular web page layouts are presented as they would be on the desktop, i.e. pages are wide and you have to do a lot of scrolling around. If you really want to get into online shopping on a P800, or if you'd rather have web pages reformatted and resized for the small screen, note that the latest version of the Opera third party browser is a free download for P800 owners. This is much more capable, but takes a lot more memory, although at least there's a 'Close' function to free up memory for other uses.

'Pictures' is a browser for all images stored on the device, both the native Symbian MBM variety and JPEG, BMP, GIF and PNG. Images tend to come from the built-in camera, of course, but you can also beam or email in (or out) pictures as needed. As delivered, there's no



*The 'Pictures' application is easy to use*

full-screen mode, so images are scaled down or viewed in scrollable 'letterbox' style, but this has been addressed in the latest firmware upgrade.

The 'Video' and 'Audio' applications are good for showing off the P800 but, as with the Nokia 3650, the sheer storage demands of multimedia rather restrict their usefulness. We couldn't get the Video player to recognise any of our home-grown MPEG-4 video clips, but you can always go trawling the Internet for suitable files—one of the bookmarks in the web browser is for P800-formatted streaming videos from city webcams.

Stereo music files are supported in MP3 and WAV formats, among others, with volume controlled by the jog dial or by tapping on the status bar control,



*Using the P800's pop-up keyboard*

although of course the use of Memory Stick Duo as the expansion card format (128MB maximum) rather restricts the amount of music that can be practically taken with you.

'Jotter' is a nice text and scribble notepad, 'Voice Memo' records in mono at 8KHz and is a frugal way of getting voice recordings down when it's not convenient to scribble with the stylus, and 'Calculator' is a bare bones, one-memo-ried utility, a far cry away from the scientific versions in previous Symbian OS.

Finally, 'Viewer' provides a basic read-only view onto native Microsoft Office documents and PDF files that have been emailed or beamed into the P800. Each is good enough to give you a general idea of the document content, but



formatting and presentation is often rather horrible. At least you can forward an attachment on to a desktop email account, for manipulation later on. The danger with actually editing native Office documents on a handheld is that structure and formatting usually get irretrievably lost, and perhaps Sony Ericsson decided to go 'read-only' to avoid getting casual users caught in this trap.

A handful of games are provided, both in the P800's ROM and on CD, including Chess, Men-in-Black II and Stunt Run. The latter even uses the P800's vibrator to add atmosphere during crashes.

Connectivity to a PC provided by the included CD is to Windows ME, 2000 or XP only, but the latest version of PC Suite downloadable from Sony Ericsson's web site now supports Windows 98 as well.

Connection can be via the supplied, saucer-shaped cradle, or via Bluetooth or infrared, although backups (and restores) have to use the cradle method. As with the Nokia 3650, the underlying connection is using TCP/IP and there's the usual flurry of permissions needed in order for PC Suite to get through your PC's software firewall. Somewhat inelegantly, PC Suite for P800 uses an emulated serial connection over a USB cable, though the top speed of 480kbps should be more than enough for most users.

Synchronization can be to Organizer 5 or 6, Notes 4.6 or 5.0 or Outlook 98 to 2002, which should cater for just about everybody. A 'My P800' icon on the Windows desktop opens up an Explorer window showing the P800 as a disk drive on the PC, onto (or from) which

you can copy files as needed. Note that not all folders are shown in this view (no System folder, for example).

The P800 is a true tri-band GSM/GPRS phone and should work anywhere in the world. Based on our review period, we'd guess that moderate use as both phone and PDA would flatten the battery within a few days. Luckily, the mains charger is diminutive and won't be a problem to pack. As with other flat-fronted communicators (e.g. the O<sub>2</sub> XDA), it's easy for the screen to get smudged and dirtied by frequent application to your cheek.

Once a call is in progress, opening the flip (real or virtual) switches the P800 into speakerphone mode. Voice quality is good, possibly even on a par with the excellent Nokia 9200 series communicators. A 'Flight' mode ensures that you can continue using the device in places where a phone is forbidden.

The success of any computer platform depends on software support, and it's very early days for Symbian OS 7, UIQ and the P800. There's a lot to like about the P800, and with enough third party software, its potential can only grow and grow.

*Steve Litchfield*

## Sony Ericsson P800

**From:** All major Sony Ericsson dealers

**Contact:** [www.sonyericsson.com](http://www.sonyericsson.com)

**Price:** Around £220 with contract/£420 without

Quality: ★★★★★☆  
Value: ★★★★★☆



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## HP iPAQ 5450

In most respects functionally identical to the iPAQ 3970 (see issue 2), the 5450 adds Wi-Fi wireless capability plus some enhanced security, of which more later.

The 5450 casing is subtly different to the 3900 series, with a more gently sloping and thus less ugly bulge at the top. Tiny flashing LEDs at the top of the unit show charging, visual alarm alerts, Bluetooth and Wi-Fi status, and are much more elegant than the visually crude huge flashing strips that appeared on previous models.

The use of a user-removable battery pack is a welcome addition to the 5450, and is a feature that we expect to be incorporated into all new iPAQ models from now on. By carrying one or more spare packs, heavy users will be able to work through a long journey or field trip without having to worry where the nearest mains socket might be.

Intriguingly, removing the battery pack reveals a SIM card slot, suggesting that the 5450 might have mobile phone functionality, or at least the necessary hardware for it, built-in. HP declined to comment on this, even though the 5450's documentation makes mention of the future availability of a Bluetooth headset, and the fact that the 5450's microphone is at the bottom front of the device, perfectly positioned for holding the unit phone-style. We'll report further on this if ever a suitable phone 'upgrade' becomes available, but for now it's safest to assume that it may not.

Another slight mystery with the 5450 is the 'Action' button at the top left of the machine, which incorporates an up/down rocker-switch as well as a basic press-button action. This type of control would of course be useful for adjusting MP3 playback volume and even paging through documents, but strangely it can't be configured for anything other than controlling voice recorder playback volume at present.

Also new to the 5450 is a stub-antenna at the top left for the Wi-Fi radio unit, with the standard headphone socket moved to the bottom left.

As well as the usual 64MB of internal memory, the 5450 comes with a capacious 22MB of additional 'iPAQ File Store' flash memory, similar to the 3970.



The five-way navigation button on the 5450 is smaller than on previous models, predictably making it a little harder to control. The smaller navigation button makes room for the Biometric fingerprint scanner directly beneath it, which appears as a narrow horizontal slit at the bottom of the device.

The Biometric scanner system gives users the option to use a finger swipe either instead of or as well as a conventional password to prevent unwanted access to the handheld. In practice, we were unable to 'train' the scanner reliably after 30 minutes of repeated attempts. Given that even once trained, failing a specified number of attempts to swipe your finger across the scanner will cause a complete lockout (requiring a hard reset and resulting loss of *all* data), this becomes a potentially dangerous feature. It's possible to set the finger swipe option as a 'quick' means of getting into the device rather than having to type a password, and this method at least allows recourse to traditional password entry if repeated scan attempts fail.

For wireless operation, Bluetooth setup has been improved over previous models via an excellent wizard application, and a decent Wi-Fi setup utility makes wireless networking as painless as possible.

The 5450's generous software bundle is largely as per the 3900, plus a few wireless applications designed to take advantage of the Wi-Fi facility.

Aside from the questionable Biometric scanner (which can simply be ignored) and the rather small navigation button,



this new flagship iPAQ model is a joy to use. By combining the usual superlative iPAQ screen with excellent build quality, good overall specifications and uncompromising wireless connectivity that's easy to use, this is almost certainly the most desirable Pocket PC device yet.

Steve Clack

## HP iPAQ 5450

**From:** All major handheld dealers

**Contact:** [www.hp.com](http://www.hp.com)

**Price:** RRP £528 inc. VAT

Quality: ★★★★★

Value: ★★★★★

## HP iPAQ 1910

Until now, it's been largely taken for granted that Pocket PC devices are physically bigger and heavier than those running Palm OS. Considering that many aspects of their underlying technologies are converging (primarily screen types and processors), that's starting to change, and improved miniaturization of components means that high hardware specifications no longer need to translate into a bulky device. HP's new entry-level iPAQ 1910 is the first Pocket PC device to truly compete with mainstream Palm OS handhelds in both size and weight though, and at



120g (4.2oz), this is even lighter than most Palm OS devices.

Given the £250 price point this is unashamedly budget-specification by the latest Pocket PC standards, but the transreflective screen is just as bright as any other iPAQ's, the 200MHz XScale processor is speedy enough, and the biggest indicators of cost cutting are the plastic finish and the inclusion of a simple sync/charging cable in place of a full (optional) desk cradle. We'd have liked to have seen a full 64MB of memory rather than the 1910's 48MB, but this won't affect the average PDA user.

The smallish navigation button is worthy of at least a minor gripe, but importantly this doesn't impede its reliable operation. There's no extra bundled software and no case of any kind, but the unit includes a pair of stereo earbuds for MP3 playback, and the removeable battery pack is in line with the top-end 5450 model.

If you're happy with a single SD slot for expansion and no wireless capabilities, the HP 1910 is small and light, with a quality feel that belies its budget price.

*Steve Clack*

## HP iPAQ 1910

**From:** All major handheld dealers

**Contact:** [www.hp.com](http://www.hp.com)

**Price:** RRP £253 inc. VAT

Quality: ★★★★★☆  
Value: ★★★★★☆



## Toshiba e350

Though all the Toshiba Pocket PCs we've reviewed in the past six months have been perfectly serviceable handhelds, their styling has always shown a distinct lack of panache. The new e350 makes a few small steps towards addressing this, with an attractive gunmetal-grey finish in place of the previous brushed aluminium, and a (plastic) stylus that thankfully no longer rattles in its housing.

More importantly, the standard issue TFT colour screen of earlier models has been replaced with the latest transreflective technology. Although the screen in our review sample was still neither as bright nor as white as that on recent Compaq/HP iPAQ models, the quality is a drastic improvement on every non-transreflective screen we've seen.



Although the e350's processor runs at 300MHz, just like its predecessor the e330 (reviewed in the last issue), Toshiba has opted for the latest Intel XScale PXA255 in place of the older PXA250. The 300MHz PXA255 offers a useful performance increase over the 400MHz PXA250 that appears in most current Pocket PC models, with applications feeling just a little bit snappier in operation, and processor-intensive tasks executing around 20% faster. Another claimed benefit of the PXA255 is slightly lower power consumption, though this didn't appear significant in practice.

Given the modest performance boost seen here, the 400MHz PXA255 as used in the new Toshiba e750 flagship model (to be reviewed in the next issue) promises a truly worthwhile step forwards.

Aside from the above, the package is completely standard fare for Toshiba Pocket PCs—identical to the e330, with a USB cradle/charger, basic software bundle and leather slip case included. At 12.4mm (0.5") thick this is still the slimmest Pocket PC available, and represents a good, basic device at an excellent price, provided you don't need Bluetooth, Wi-Fi or a dual expansion slot.

*Steve Clack*

## Toshiba e350

**From:** All major Toshiba dealers

**Contact:** [www.toshiba.com](http://www.toshiba.com)

**Price:** RRP £249 inc. VAT

Quality: ★★★★★

Value: ★★★★★

## Dell Axim X5

Already making a considerable impact in the USA since its release, the Dell Axim X5 is now appearing in other countries, available through Dell's mail order network.

Although unremarkable in any sense, the Axim is a solid device. With many similarities to the excellent Fujitsu Pocket LOOX 600 (as reviewed in the last issue), the Axim offers both SD and CF card expansion slots and jog dial navigation, and the Axim leapfrogs the Pocket LOOX by incorporating a removable battery pack. It lacks Bluetooth, though of course the extra expansion slot makes this (or even Wi-Fi) easy enough to add without sacrificing storage capability.

At 205g (7.2oz) the Axim is indisputably heavy, but at least it's comfortable to hold, thanks to a tapered bottom end and rubberised strips down each side that make it easy to grip. The X5 still wouldn't win any style or design awards though, but most Pocket PCs are ugly enough that the Axim doesn't really stand out from the crowd.



What does stand out is the truly hideous and bulky rubber-finished wallet case that's supplied with the unit. This almost doubles the handheld's thickness, making it virtually useless for slipping into all but the largest pockets.

Still, most criticisms wither into insignificance when considering the price. The Axim comes in two models: the 'Standard', with a 300MHz XScale processor and 32MB memory, and the 'Performance', with 400MHz XScale, 64MB, a sync cradle rather than a basic cable, a clearer (transreflective) screen and 21MB of flash memory storage. At £197 and £267 respectively (including both VAT and delivery), these represent superb value for money. Even by taking the 'Performance' model and adding a CF Bluetooth card, the price is still cheaper than most competing models.

If you're looking for a slimline, lightweight handheld then look elsewhere, but if you prefer a budget price without losing expandability then the Axim is a fabulous buy. The 'Performance' model is worth the money for the better screen alone, and to make the decision even easier, the Dell web site offers it in 48 easy monthly payments of a mere £8.

Steve Clack

## Dell Axim X5

**From:** Dell Computer Corporation

**Contact:** [www.dell.com](http://www.dell.com)

**Price:** £197/267 inc. VAT (see text)

Quality: ★★★★★☆

Value: ★★★★★★

## SnapperMail

version 1.6.2.01

There are a small number of third-party applications that are seminal in Palm OS history: Rick Bram's 'Doc', which eventually spawned all current Doc readers; Edward Keyes' 'HackMaster', which defined the standard on how to patch the OS behaviour; and Art Dahm's 'ImageViewer', which was the first graphic viewer for Palm OS. Some would argue that SnapperMail will have a similar influence, and they could be right.

SnapperMail is, of course, a Palm email application, and is in most respects a competent example of the breed. It includes support for multiple email accounts, multiple folders, and periodic email checking and delivery.

Considerable thought has gone into the user interface: columns can be resized or reordered by dragging, and a simple tap at the top of the relevant column will sort messages. The designers have gone so far as to provide a 'finger friendly' mode, where the elements of the screen are expanded in size to make them an easy target for your finger. The scrollbar—always a particularly fiddly control to manipulate without a stylus—now widens when touched.

Tapping a highlighted message will open it automatically, but tapping-and-holding will open a contextual menu, letting you open or delete the message, or move it to a folder.

Selecting multiple messages (for moving or deleting, for example) is a simple matter of tapping and dragging so as to highlight the entire range.

But all this, nice as it is, is certainly not ground-breaking. What makes SnapperMail so significant is its pioneering use of Palm's Exchange Manager.

As a fundamental, the SnapperMail developers decided to create a flexible and powerful internal mail database. They recognised that some Palm devices don't have expansion slots, or at least may have their expansion slots tied up providing Internet connectivity. So, they chose to design a main-memory database that not only supports unlimited message sizes, but also supports unlimited file attachments of any type.

Attachment support is nothing new, of course—MultiMail provided plug-ins for limited types of attachments years ago, and there are other email products that will accept mails with attachments and drop them onto an expansion card. Significantly though, SnapperMail doesn't rely on a memory expansion card being present for the capability of dropping or forwarding attachments. Someone using a Handspring Treo 300 or other non-expansion device can quite happily receive, store, and/or forward any PC-native file that will fit into available memory.

Once they had the foundation, the designers then addressed how to handle attachments. SnapperMail registers itself on your Palm device as an exchange mechanism. This means that any application that supports the Palm OS 'Send' function will now automatically allow the use of SnapperMail to receive the record or information being sent, and attach it to an outgoing email. The application doesn't have to be 'aware' of





*SnapperMail's inbox in 'FingerNav' mode*

SnapperMail specifically, it simply needs to support the general exchange library.

As an example, once you install SnapperMail you can not only beam or send an address record via Bluetooth from Address Book, but you can now send that address record via email.

Conversely, any application that now registers itself within the Palm OS as supporting a particular file type can now receive and manipulate a SnapperMail attachment of that type.

SnapperMail does not itself provide for attachment viewing, recognising that the task of opening and best rendering the wide variety of possible attachments is better suited to other applications dedicated to the purpose.

Some attachment types are already handled by Palm's built-in applications: Memo Pad handles text files, and Address Book and Date Book handle vCard and vCal files respectively.



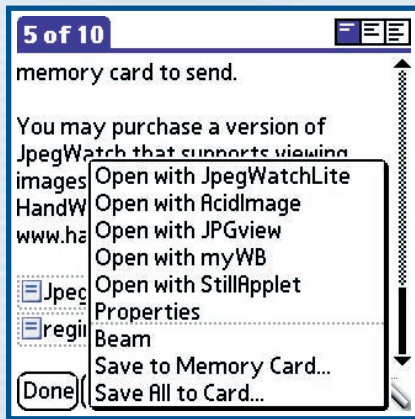
*An email with multiple attachments*

SnapperMail also bundles in some basic applications to handle the more common file types: JpegWatchLite is a serviceable JPG viewer, and HandZipperLite not only unzips Zip attachments, but can in turn forward the zip archive's contents to other registered applications. SnapperMail also includes a simple file manager, which allows you to save attachments to an expansion card should you have one installed.

The latest version of the scribble utility DiddleBug is also included with SnapperMail, and now supports sending and receiving simple sketches as a PNG graphic file.

You're not restricted to using the bundled viewers either—there are a number of other image viewers, for example, that can handle native JPG files, and you may use any of these, provided they support the Palm-standard Exchange Manager. SnapperMail is friendly enough to recognise if there are multiple viewers installed for a given file type, and will give you the choice of which one to use.





*Opening a JPEG with your preferred viewer*



*Opening a Microsoft Word document*

An exciting recent development that relates closely to the way SnapperMail works is the release of QuickOffice Premier, which now supports native Word, Excel and PowerPoint files, as well as HTML, text and CSV files. Similarly, DataViz has announced that Documents To Go will also support native Microsoft Office files this summer.

So why is this all a big deal? Two reasons. Firstly, the ability to receive,

manipulate and forward native PC files without needing to return to the desktop is potentially of tremendous value to road warriors, and is one more strand broken in the tether tying mobile workers to their PC or Mac desktops.

Secondly, the ability to exchange PC files with other mobile devices, such as cameras, MP3 players and non-Palm handhelds, will make your Palm OS PDA a much more versatile mobile tool.

### **Alternatively...**

There are alternative solutions to native file format handling. Inbox To Go, \$50 from DataViz ([www.dataviz.com](http://www.dataviz.com)) will let you receive attachments wirelessly, modify them, and forward them to the final recipient in native Microsoft Word or Excel format. It does this via an annual subscription to a server-side solution. Your incoming email is routed via DataViz's servers, where the attachments are converted into standard Documents to Go format. Similarly, your outgoing email is also routed through the server, where the Documents To Go items are converted back to native Microsoft Office format.

While not as versatile as in-Palm native support (it doesn't provide you the capability to forward or receive documents via infrared or Bluetooth) it does the job well for email. Inbox To Go requires Documents To Go in order to work.

That's not to say there aren't areas of weakness within SnapperMail: at present, it doesn't support viewing HTML emails and it doesn't support IMAP mailboxes. Also, no desktop conduit is provided with the product. These are all deficiencies that the developers promise to address in future releases, but they're coy about release dates and, in fact, don't reveal much about their development roadmap. A comfort is that SnapperMail is indeed a frequently-updated product.

Steve Turczyn

**SnapperMail**

**From:** SnapperFish Ltd

**Contact:** [www.snappermail.com](http://www.snappermail.com)

**Price:** \$35, or \$70 to include all future upgrades

Quality: ★★★★★

Value: ★★★★★

**QuickOffice Premier**

QuickOffice Premier is the first Palm Office suite to offer native file support. Word, Excel and PowerPoint files received via infrared, Bluetooth, Wi-Fi or email attachment, (or perhaps on expansion card) can be opened by QuickOffice Premier. Our tests found it to work well, and sending a Word document from a Symbian handheld to a Palm OS PDA via infrared, the document was accepted automatically into Quickword, with formatting intact. We also opened Word email attachments and Excel spreadsheets without problems, and translation occurred with remarkable speed.

PowerPoint slides present a slight disappointment, as Quickpoint was unable to handle graphics, though PowerPoint documents converted via the desktop conduit will show the full graphics rendered.

More annoyingly, QuickOffice is unable to save files in native format. Opening a document for modification will convert it into QuickOffice format, but the document cannot be subsequently saved in Microsoft Word or Excel format. This isn't quite the disaster it may first seem to be. Firstly, native Quickword format is in fact HTML, which should still be readable on most target devices. Secondly, sending Quicksheet documents will give you the choice of QuickOffice format, CSV, or HTML, so again you're likely to find a format compatible with the recipient's machine.

QuickOffice Premier costs \$50, from [www.cesinc.com](http://www.cesinc.com).

## AllTime

version 4.0

Iambic's flagship time-tracking software has been around for a while, but this is the brand new version 4, which is part of a big coordinated upgrade with Iambic's corporate, multi-employee time logging system, TimeReporter. AllTime is the handheld-only client and is designed for lawyers, consultants, engineers, etc. In short, anyone who needs to bill someone else for time spent working on their behalf. And not just time, for AllTime also logs direct expenses incurred and miles travelled on behalf of your clients.

There's no doubting the comprehensiveness of AllTime, although (as with Iambic's Agendus PIM software) the maze of different pick lists, dialogs and buttons is a bit fearsome at first. As you start to enter client and project data, the pick lists become populated with sensible choices, and AllTime becomes a lot more manageable.

Most people won't need to break billable time down into client, project, task and activity, but it's nice to know that AllTime can become as detailed as you'd like it to be. The only field you have to specify for each job is that of 'Client', which is fair enough—the other fields can all be left blank if you prefer.

You can enter known time periods for work already performed, but most people will use AllTime in its timer mode. Once a timer is started for a client (or project or task, etc.) an animated stopwatch icon appears on the appropriate line in each of AllTime's views. Apart from the main overview screen, there are daily and weekly schedule views, showing where and when you worked for whom. It's all very slick and very fast in operation. Timers can be started and stopped on the overview screen by simply tapping in the right place on a client's line.

Adding expenses and motoring miles is also made very easy, although there

Date	Client	Amount
6/5	Palmtop Pubs	2:07
6/5	Abacell	4:46
6/5	Bizzell	0:02

▼ Sort: Date/Time 6:54

▼ Project:

Buttons: [List Icon] [Grid Icon] [New] [Expense Icon] [Miles Icon] [All]

*AllTime's main client/task overview screen, with a timer running*

Time Entry Unfiled

▼ Client: Palmtop Pubs

▼ Project: Issue 4

▼ Task: Review AT

▼ Activity:

Tue 6/5/03 8:45 - 12:46

▼ Duration: 02:17

▼ Break: 00:10

▼ Purpose:

Buttons: OK Cancel Details [Trash Icon]

*Setting up a new client, project, task and activity*

are no pre-programmed expense types, so you have to set up your own from scratch, setting up 'validation lists' of allowed expenses. Reporting of billed time, expense and mileage is done in plain text into a new Memo Pad record, although this isn't very configurable.

Although AllTime works well (most of the time, we experienced a few resets when fiddling in dialogs) on Palm OS 5 devices, support for colour and high resolution screens is minimal. Disappointingly, for such a complex application, there's also no online ('Info') help within dialogs, which would have made a big difference.

There are simpler and cheaper time tracking solutions for Palm OS, but nothing else is quite this ambitious. If you

charge your time by the minute, have more than a handful of clients and incur other expenses on their behalf, AllTime is a good way to bring everything under one roof and make sure nothing is forgotten.

Steve Litchfield

## AllTime

**From:** iambic Software

**Contact:** [www.iambic.com](http://www.iambic.com)

**Price:** \$40

Quality: ★★★★★

Value: ★★★★★

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Pocket PC users already enjoy the benefits of a pretty capable email client, in the shape of the built-in Inbox application. Beyond its abilities to keep your handheld in step with even a complex folder structure from Microsoft Outlook on your desktop PC, there's still room for improvement though.

This very first version of @Mail certainly doesn't fill in all the gaps in Inbox's functionality, but it already goes far enough to make it a significant development.

Produced by the same company that brought us the excellent Pocket Informant enhanced PIM (see page 24), @Mail naturally enough integrates exceptionally well with it, though in no way requires Pocket Informant in order to work in its own right.

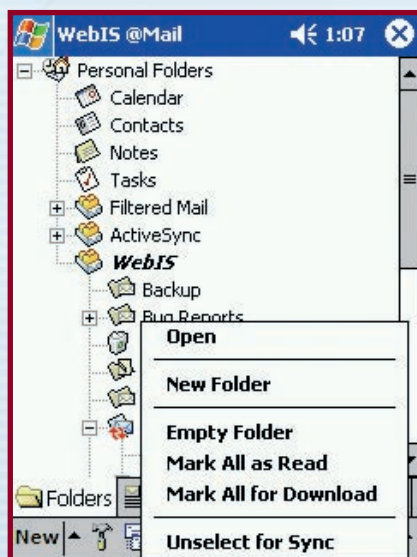
Once installed, @Mail presents a very straightforward interface, with precious little new to learn. Existing email accounts (either POP3 or IMAP4, of course) can be taken from your Inbox settings, and new ones can be added directly within @Mail. Once set up with @Mail, the only requirement to ever go back to Inbox is to change the setting for whether file attachments are stored on internal memory or storage card.

@Mail setup options also include the addition of default signatures for each separate email account, and the ability to set the software to automatically check for email messages at pre-set intervals. Individual messages can also be limited to a predefined maximum size, as can attachments.

Having completed the brief setup, navigating through @Mail's folder 'tree' is completely intuitive. As well as the usual email folders there are line items for quick access to Calendar, Contacts, Notes and Tasks, or the corresponding equivalents within Pocket Informant if you're using that instead.

Branches of the folder tree can be expanded and contracted using the familiar Windows-style '+' and '-' icons, and tapping on a folder will display a list of the messages therein. It's a minor frustration that the 'Mail List' view for each folder shows sender, header, date and size of each message but not the time it was sent, making it necessary to open the message to display this information.

Sending and receiving messages from a single account is as simple as tapping-and-holding to bring up a contextual menu, a feature that also provides quick



*Simple folder structure and contextual menus*



*@Mail's Mail List view*

access to housekeeping functions such as deleting messages, marking them as read, or marking previous partial downloads for full download at the next connection. The ability to move messages between folders is strangely missing in this release.

A handy 'Send and receive all accounts' icon at the bottom of the screen will do exactly what it says in a single hit—a feature that's sorely missing from Inbox.

Amongst the benefits of @Mail is its ability to display HTML-formatted messages. There are occasions when this process falls over, and it doesn't work with emails synced through ActiveSync, but the latter is a limitation of ActiveSync rather than @Mail.

Of the features most notably missing from this initial release, most are promised to be under consideration. These



*Viewing HTML emails as they were intended*

include the ability to compose HTML messages directly from within @Mail, remove downloaded messages from the server, and the ability to access SSL emails from a corporate server.

For a first release, @Mail is already impressive, and adds enough new features beyond the standard Inbox as to make it a worthwhile purchase.

*Brian Goulding*

**@Mail**

**From:** Web Information Solutions Inc.

**Contact:** [www.webis.net](http://www.webis.net)

**Price:** \$25

**Quality:** ★★★★★☆

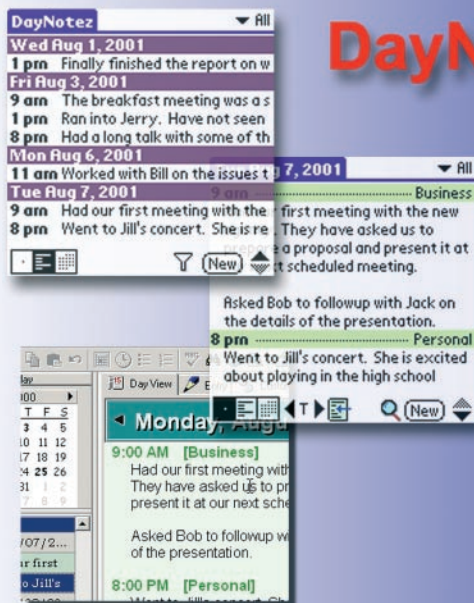
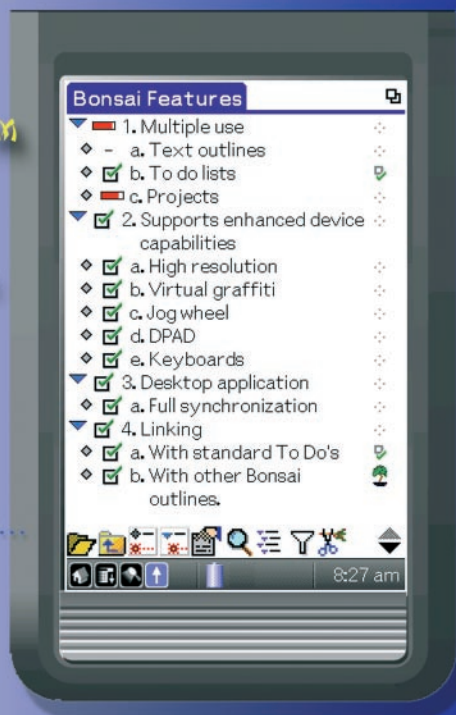
**Value:** ★★★★★☆



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# More Data

*With an emphasis on ease-of-use, Anne Johnstone takes a look at database programs for your handheld*

**M**ost Psion users will know very well the convenience of having even a basic database program on board. Built into even the earliest Psion Series 3 models, the free-form Data application made it the work of only a few minutes to set up simple databases to keep track of everything from a CD collection to favourite recipes.

Oddly, considering how immensely useful such a feature is on any portable device, no built-in database program has appeared on any mainstream handheld device since, including the Nokia 9200 communicator

range that otherwise inherited the vast majority of the Psion software applications.

It's no surprise that third party offerings have appeared to fill the gaps in non-Psion platforms, and indeed there are even a few alternatives for the Psion range that provide better functionality than is built-in. However, some of the alternatives have a pretty steep learning curve, and the majority of handheld users are looking for something that's no harder to use than the basic applications that came with their PDA. Over the following pages we'll take a look at the main alternatives for those seeking a database program, with an emphasis on those that are most straightforward to use.

Keyword: **CompactFlash (CF)**  
Features: I 13, p26-7; I 17, p68-9; I24, p49-58 ("Inside CompactFlash"); I26, p47-8 (backing up to)  
Mentions: I 14, p9; I 15, p9 & 70, I16, p67-70 (SanDisk); I 19, p96-7; I20, p100 (tip) and p102 (Q&A); I23, p102-103 (Q&A); I27, p44 (S7) and p105-6 (space/optimising); I28, p57 (system folder implications)

Backing up, backups  
● CompactFlash (CF)  
IBM Microdrive (CF ty  
Kingmax CF cards  
netBook (Jedi)

Find:cf



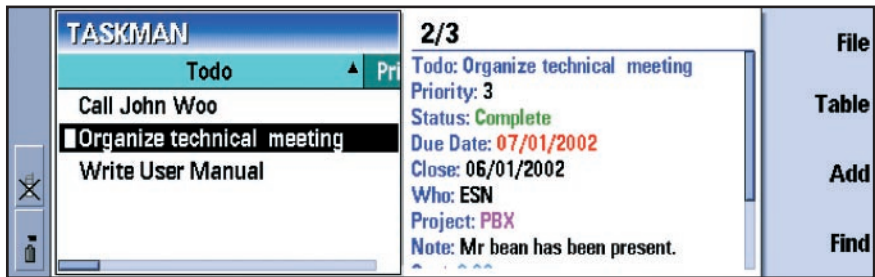
Prev

Next

2/5

**Psion's built-in  
Data application**





*SmallBase works on both Psion and Nokia handhelds, and is powerful but takes time to learn*

## Databases for Psion

If you use a Psion handheld (or even a Series 7 or netBook) and find the built-in Data application too lightweight for your needs, there are two alternatives to choose from. If you're a database novice and are used to the elegant simplicity of Data then you should be prepared to spend a fair amount of time poring over documentation though, as both of the third party database programs for Psions are relatively complex.

The easiest to learn by far is **SmallBase** (£17, from [corisoft.free.fr](http://corisoft.free.fr)), which works happily on the Psion Series 5/5mx, Revo, Series 7/netBook and even the long-defunct Geofox One. The program has had numerous updates since its first release only 18 months ago, indicating a serious commitment on the part of the developers. The latest version (4.03) is a very solid piece of software, with support for a wide range of field types, including the all-important pop-up lists that allow you to select items from a dialog box rather than typing item names in manually—the most notable omission from Psion's own Data application.

Beyond the basics, SmallBase adds colour-coding or shading for fields that meet certain criteria, the ability to add alarms to database records, advanced searching

and filtering of records plus encryption of databases.

Early versions of SmallBase allowed only a single file to be open at a time, but Psion users used to multitasking will be pleased to know that the latest version is a file-based application, allowing any number of files to be left open at once, as with the built-in Word, Sheet, etc.

Although it would be a major undertaking to learn the full functionality of SmallBase from scratch, much of the complexity is in using more advanced features that the average database user can happily manage without. If you're looking to export your existing Psion databases into a program with more flexibility and power, or plan to migrate to a Nokia 9200 series, it's well worth taking the time to learn the basics of SmallBase.

Six months ago, Purple Software's **PowerBase** application would have featured as one of the alternatives for Psion, but with the recent demise of the company, this program is only available on the second-hand market. If you do get the opportunity to obtain a copy, be aware that PowerBase was really designed for experienced database developers only, and is unsuitable for the casual user.



*Power Data works only on the Nokia 9200 series, but is a good all-rounder*

The only other current option for Psion users is the freeware **PsiDat** ([www.millican.info/Home/PsiDat.htm](http://www.millican.info/Home/PsiDat.htm)). It's virtually as hard to get to grips with as PowerBase, but powerful if you're prepared to invest the effort.

## Databases for Symbian

Add-on database options are currently limited to the Nokia 9200 series, with its large screen and realistic processing power for the task. There are three full-featured programs to choose from.

The simplest option is **Data Plus** (\$45, from [www.2Kdevelopment.com](http://www.2Kdevelopment.com)), which was reviewed in the last issue of *Palmtop User*. The current version (1.00) is a little rough around the edges when it comes to the user interface, but it's still the best bet for novices learning to use a database application for the first time.

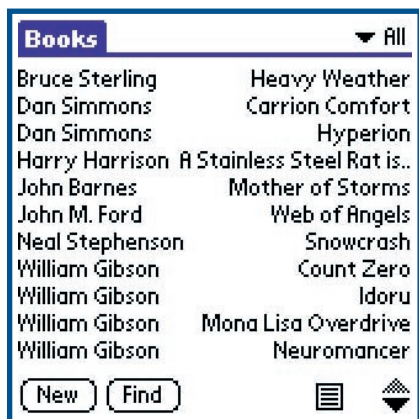
**PowerData** (\$25, from [www.epocware.com](http://www.epocware.com)) offers a good balance between power, polish and ease-of-use. Over 40 pre-configured templates can help you to get started, with databases such as home inventory, diet logs, and so on. At little more than half the price of Data Plus it represents excellent value for money, particularly considering that it offers a wider range of features.

**SmallBase**, as discussed on the previous page in its Psion version, is almost identical on the Nokia 9200 series. Ultimately the most powerful and flexible of the three options here, it's the hardest for the beginner to learn, by a fair margin. If you happen to use both Psion and Nokia devices or need to share information between the two then it's an obvious choice, but otherwise check that Power Data doesn't do all you need first.

## Databases for Palm OS

The lack of a built-in database application within Palm OS has been a frustration for many users since the very beginning. Most recent Palm OS handhelds come bundled with Documents To Go, and its Sheet To Go spreadsheet application (or any other third party spreadsheet program) is of course an alternative for storing simpler databases, but a true database application will always do a far better job when you need to sort or find information, and generally presents this kind of data in a way that is clearer and easier to read.

For very basic needs, you can't beat the freeware **List** ([www.magma.ca/~roo/list/list.html](http://www.magma.ca/~roo/list/list.html)). After an astonishing four years in 'pre-release', the 'new' version 1.00 is now available. You're limited to a mere two



*Though very basic, List has many uses*



*MobileDB—easy to use and well connected*

data fields plus a note field, but the program takes only seconds to learn, and is ideal for keeping track of simple collections, etc.

If you need more flexibility but still want to keep things simple, **MobileDB** (\$20, from [www.handmark.com](http://www.handmark.com)) includes seven field types (including check-boxes and pop-up lists), and is easy to learn. The program includes a PC companion to create, edit and view files on the desktop, and this can also be used to import and export data files in industry standard (CSV or tab-delimited) formats. For an extra \$10 you can also purchase Microsoft Excel or Microsoft Access conduits that allow direct data exchange with these popular programs. There are also hundreds of pre-made MobileDB databases available for download.

A version of MobileDB has recently appeared for Pocket PC, with identical functionality and the same desktop options.

Along similar lines, **JFile** (\$25, from [www.land-j.com](http://www.land-j.com)) provides for most common database needs, and adds a 'calculated' field type not present in MobileDB, which is very useful if you use a lot of numbers

(prices, for instance) in your databases. There's a PC-based import/export program, though this falls far short of MobileDB's excellent desktop conversion options.

If you're happy to create databases on a Windows PC rather than your handheld, **dbNow Deluxe** (\$20, from [www.pocketexpress.com](http://www.pocketexpress.com)) is worth a look, though the current version is not yet fully compatible with Palm OS 5 devices. Once created, databases can be modified on the handheld, and desktop synchronization is good, even with multiple users.

For a good combination of simplicity, power, price and expandability, **HandBase** (\$30 upwards, from [www.ddhsoftware.com](http://www.ddhsoftware.com)) is a hard contender to beat. Although it incorporates a wide range of field types, relational capabilities, multi-user synchronization and a variety of desktop database add-ons, it's still relatively easy to get started with HandBase. Once you get the hang of things, there's even a desktop 'Forms designer' that allows you to arrange fields, labels and buttons on the handheld screen

**Record 2 of 2**

Address: 125 Hyde Street  
 Agent Info: M & A Corp.  
 First Seen: 11/11/2002  
 School Dist: Melboa District  
 Rent \$: 500  
 Lease Period: 1 year  
 Sq. Ft: 890  
 No. Floors: 4  
 No. Bedrms: 4  
 No. Baths: 2  
 Fireplace: Wood  
 A/C: Window units  
 Heat: Radiated  
 Heat Fuel: Oil  
 Fridge: Yes

OK Cancel New

*JFile offers a basic range of field types*

to make data input easier and the whole user experience that much more pleasant.

If your requirements are basic then HandBase may be more than you need, but if you think you might wish to expand your horizons once you gain a little practice, HandBase is a program you're unlikely to outgrow.

HandBase is also available for Pocket PCs, and data files are fully compatible with the Palm OS version, making it easy to use in a cross-platform environment.

Previously ThinkDB (recently acquired by DataViz and renamed), **SmartList To Go** (\$30, from [www.dataviz.com](http://www.dataviz.com)) may sound like a simple list manager, but is in fact a powerful database application for Palm OS. Its biggest strength perhaps lies in the ability to set up multi-page forms on the Palm device, which makes it easy to handle data records that use a large number of fields.

The flexibility of SmartList To Go's multi-page approach does make the user interface harder to get to grips with than any of the other Palm OS alternatives covered

**Recd 1 of 2** Marketing

Date : 9/20/02  
 Dept : Packaging  
 Subject : Retail Box Art  
 f/u ? : Select: Yes | No

Notes Decisions Actions A

Action 1 : Continue on concepts  
 Done : ☐  
 Action 2 : Start writing box copy  
 Done : ☐  
 Action 3 : Reserve printing time  
 Done : ☐

OK Cancel

*SmartList To Go offers excellent presentation*

here, but once you've mastered the basics it's all quite straightforward. If you want to present the information in your databases neatly and attractively without having to use a desktop companion program (as with HandBase) then SmartList To Go is a good choice.

A desktop companion application for SmartList To Go costs an additional \$20, but adds import filters for Excel and FileMaker Pro, easy synchronization with Microsoft Access databases, and allows new databases to be created directly on the desktop.

## Databases for Pocket PC

As with Palm OS, current Pocket PCs include no database application as standard. There are a number of fairly specialised applications designed to allow Access databases to be viewed on the handheld, and a few database applications that require familiarity with database concepts such as Tables, Forms and Queries. Whereas such terms are all pretty basic to hardened database programmers and anyone who has learned to use Microsoft Access,





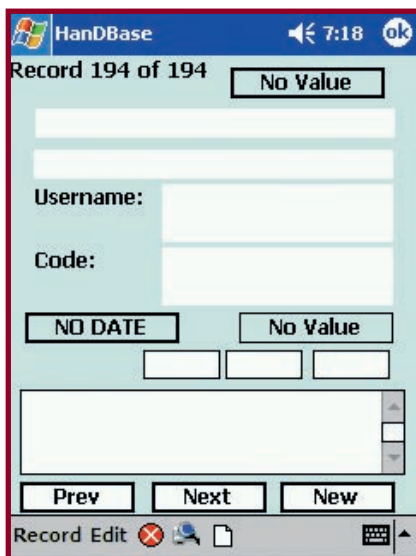
***DB Anywhere—good for Access experts***

they make life very complicated for the casual user. If you're comfortable with this kind of terminology then you may like to take a look at **Data On The Run** ([www.biohazardsoftware.com](http://www.biohazardsoftware.com)), **DB Anywhere** ([www.handango.com/dbanywhere](http://www.handango.com/dbanywhere)) or **SprintDB Pro** ([www.kaione.com](http://www.kaione.com)).

Interestingly, the two remaining Pocket PC database alternatives for creating databases directly on your handheld both started life under Palm OS.

**MobileDB** for Pocket PC, as discussed on page 70, is just like the Palm OS version, and is a good bet if your needs are relatively simple and you want something that's very quick to learn.

**HanDBase**, also covered in the Palm OS section of this article, is similarly almost identical to its Palm OS equivalent, though



***HanDBase Forms Designer adds panache***

the Pocket PC version has the benefit of including a version of the 'Forms designer' application that works directly on the handheld, as well as having the option to use a PC component.

## Choosing a database

With such a huge range of functionality, from the simplest list managers to complex SQL query-based solutions, you really need to stop and think about your data requirements before diving into a specific program. You may have to load up and try several of the database solutions here before you find one that suits your own particular requirements, but a good database program can be used for a variety of tasks, and is a worthwhile tool to learn.

# Sound & Vision

*Steve Litchfield explores the world of audio and video playback on your handheld computer*

**W**hen compared to dedicated hardware your PDA makes for a pretty average Walkman and a so-so video player. There's still a lot you can do though, whichever handheld you own, to take advantage of the latest high capacity expansion cards and cutting edge compression software.

For example, on the video side, what about a few short children's programmes, ready for when the kids next get bored in the car? Or promotional videos of your company's products? What about some music videos, trailers for the new film you're longing to see, or favourite family video clips? On the audio side, there's perhaps less scope for the imagination, aside from loading up a music album in MP3 format. The problem with putting music files onto a PDA storage card is that SD disks are only available up to 512MB at present, and at around £250 this doesn't make for a very cost-effective music storage medium. Consider

that for the same price you can buy a dedicated Apple iPod MP3 player, complete with headphones and 10GB of storage space—20 times as much as the 512MB SD card.

For both video and audio media files, there's a trade-off between bit rate (i.e. the amount of bits of information used per second to describe the picture/sound) and file size. For clips of any length, it's important to examine the quality needed and perhaps reconvert the clips with a lower bit rate, potentially saving many tens of megabytes on your expansion card. You may find tools such as **VideoStudio 7** ([www.ulead.com](http://www.ulead.com)) and **Soundprobe** ([www.soundprobe.com](http://www.soundprobe.com)) useful in this task, although many audio and video systems for handheld computers come with their own, dedicated convertors, and these should be used where possible. If you're struggling to think how to get video footage onto your computers in the first place, have a look at [3lib.ukonline.co.uk/dvd/tips.htm](http://3lib.ukonline.co.uk/dvd/tips.htm).

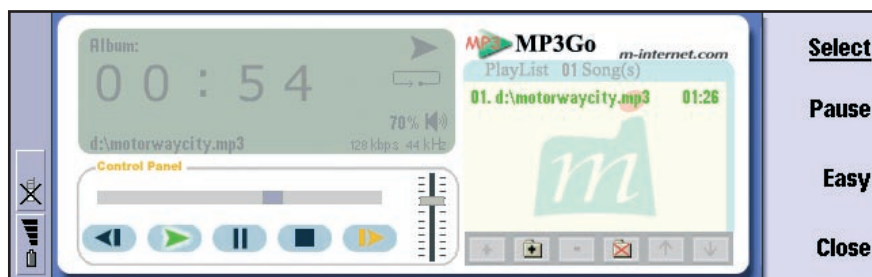
## Understanding formats

Popular video formats include MPG, AVI and WMV, all of which are available in a variety of screen resolutions, bit rates and encoding schemes. The area is a bit of a nightmare for the uninitiated, and our best advice is to look at the file sizes produced for your handheld and then use common sense. For audio, don't go above about a megabyte per minute (e.g. MP3 at 128kbps), for video, try to resist going above about 4MB/min. At this rate, you'll still only get half an hour's worth of video on an empty 128MB expansion card, a statistic which should bring your expectations down to earth. For audio, you'll come across MP3, WAV, WMA and ATRAC3, all of which (again) come in different varieties and bit rates.

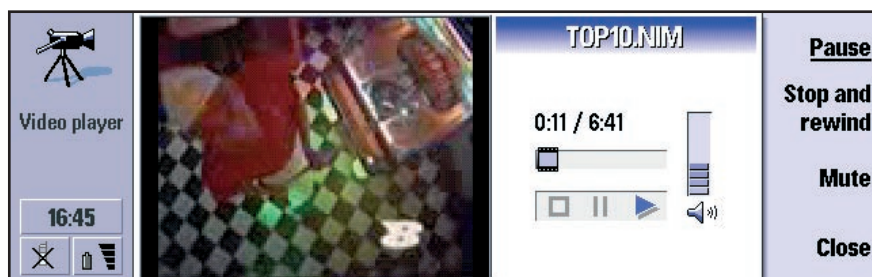
Again, there is no 'best' format for either video or audio. It all depends on the format of your source material, the playback software you intend to use on the handheld, the quality needed, and the type of handheld itself.

## On Symbian

Let's start at the bottom and work our way up. The Psion palmtops and Symbian communicators are the least capable in terms of multimedia, despite being the first to offer digital sound around eight years ago. In fact, it's only recently that MP3 playback became possible, with **Audio Player** (\$12, from [www.vikinggames.hu](http://www.vikinggames.hu)) on the Psion and **MP3Go** (\$45, from [m-internet.com](http://m-internet.com)) on the Nokia 9200 series, although neither



*MP3Go on the Nokia 9210 communicator*



*The bundled Nokia Video player, impressive for short clips*

machine has a headphone socket to make serious listening practical. In fact, for both platforms the audio bit rate can usually be taken down as low as 48kbps before you start to notice anything missing.

On the video side, there's nothing for the monochrome Psion screen and only Nokia's own very simple **Video Player** for the 9200 communicators. The latter comes with a proprietary convertor utility which does a good job of rendering video down to a small window on the 9200, working out at quite a bit less than a megabyte per minute (in Nokia's own NIM format), and the communicator's speaker does a decent job at delivering the soundtrack. The bad news is that there's no way to jump around in video clips, making anything more than a few minutes rather impractical.

The Nokia 9200 series ships with a version of **RealPlayer** ([www.real.com](http://www.real.com) - video and audio), but it's now sufficiently out of date as to be incompatible with

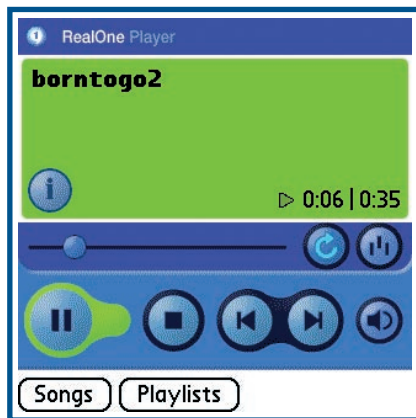
most of the Real Networks content on the Internet. The newer Series 60 Symbian smartphones and Sony Ericsson P800 also ship with a version of RealPlayer, using a different format again. We'll be featuring this in a future issue.

## On Palm OS

Things are a lot brighter under Palm OS, at least on the latest Palm OS 5 devices with ARM processors, such as the Palm Tungsten T. In addition to being fast enough to decode MP3 audio files, these have headphone sockets so that stereo music files can at least be appreciated. The two leading third party audio players are **AeroPlayer** (\$9, from [www.aerodromesoftware.com](http://www.aerodromesoftware.com)) and **Pocket Tunes** (\$10, [www.pocket-tunes.com](http://www.pocket-tunes.com)), although playback on the Tungsten T is rather hampered by the low output volume from the headphone socket, making listening difficult in busy environments. If you are a Tungsten T owner, do make sure you also download

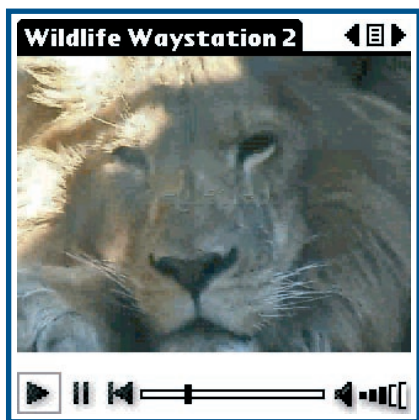


*Pocket Tunes playing MP3 music on a Palm Tungsten T*

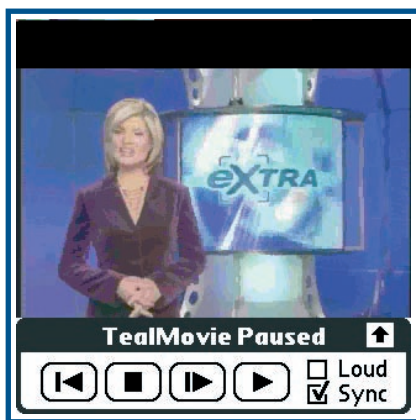


*The freeware RealOne Player for Palm OS works well for casual use*





***Kinoma Player – state of the art movie playback under Palm OS***



***Customise your Palm OS video clips with TealMovie***

Palm's 'Audio Update' ([www.palm.com/support/downloads/palmaudio.html](http://www.palm.com/support/downloads/palmaudio.html)), which dramatically improves the handheld's frequency output.

A free alternative, recently released in conjunction with Palm for the Tungsten T only, is **RealOne Player**. In addition to playing RealAudio files, this has the benefit of also handling MP3 format, although it takes up slightly more processor time and there are less bells and whistles compared to the third party shareware. Still, for casual users, this is the easiest and cheapest option. If you can't face the large (8MB) download of the official RealOne for Palm OS package, or if you don't want Real's desktop interface as well, just grab the Linux Zip file, which only contains the handheld bits you actually need.

The top Sony CLIE handhelds handle audio in their own way (in both hardware and software), using the supplied **Audio Player** utility and often coming with stereo headphones out of the box.

The use of a dedicated sound processing chip makes a big difference, and sound quality is excellent. The only fly in the ointment is that you've still got to have somewhere to store the music, and the restriction to Memory Stick usually means less available storage than with the SD format. This is addressed to a degree by the new (up to) 1GB Memory Stick Pro cards, at present only compatible with Sony's Palm OS 5.x devices (the NX, NZ and TG series). Sony's desktop SonicStage software will only convert your music CDs into ATRAC3 format and will only write them to the pricier (but digitally secure) MagicGate Memory Sticks. Most Sony owners tend to stick to MP3, which works fine on the standard Memory Sticks.

Video playback is possible under Palm OS through a number of applications, the two standout contenders being **TealMovie** (\$20 from [www.tealpoint.com](http://www.tealpoint.com)) and **Kinoma Player** (free, from [www.kinoma.com](http://www.kinoma.com)). Both of these have their strong points

and both are capable of startlingly good results on the high resolution screens and fast processors of the Tungsten T and top Sony CLIEs. TealMovie impresses especially because of the level of control its convertor utility gives over the production process. There are dozens of parameters to play with, including colour palette, screen resolution, video and audio compression schemes and bit rates. Kinoma Player scores by virtue of letting you jump to any point in a video clip, rather than having to watch it from the beginning each time.

The high-end Sony CLIEs come with a **Movie Player** application that can view native MQV (MPEG-4) formats, but this is more to provide a viewer for movies recorded with the built-in camera. Sony users who want more versatility will usually still want to install TealMovie or Kinoma Player.

## On Pocket PC

The Pocket PC platform currently holds most of the multimedia aces, perhaps not surprisingly, given Microsoft's resources and the higher hardware specifications of most Pocket PC handhelds. **Media Player** is the audio and video tool used by most people, and it comes bundled with every Pocket PC. Media Player will happily play MP3 and WMA audio, plus the highly efficient WMV video format, with full navigation control throughout a clip's length. As with modern Palm OS handhelds, there's no problem playing files back from expansion disk as opposed to internal memory.

If you like to tweak the frequency response of your music playback, there

are alternative music players available for Pocket PC. **PocketMusic** (freeware in an MP3-only version and \$20 for an MP3/WMA playback version, both from [www.pocketmind.com](http://www.pocketmind.com)) adds graphic equalizer-style controls, 'spectrum analyzer' and a skinnable interface.

Equally attractive, but with a rather better implemented interface, **withMP3** (\$16, from [www.citsoft.net](http://www.citsoft.net)) provides MP1/MP2/MP3 playback and adds all the extra functionality you might need above and beyond the built-in Windows-Media Player.

If your video playback needs go beyond WMV and you need to handle the more common (though rather less efficient) MPEG-1 (MPG) video format, **PocketTV** (free for personal use or \$50 for a performance-enhanced Enterprise Edition, from [www.pockettv.com](http://www.pockettv.com)) offers



*If you crave a graphic equalizer and pseudo-spectrum analyzer, withMP3 fits the bill*



*PocketTV adds MPEG playback to complement Pocket PC's built-in WMV facility*



*QuickTime on your Pocket PC, shown here running under PictPocket Cinema*

smooth playback and can zoom or rotate its viewing window, right up to a 320x240 pixel full-screen mode.

Designed first and foremost for handling digital photo albums and viewing a variety of still image formats (including native Adobe Photoshop), **Resco Picture Viewer** (\$20, from [www.resco-net.com](http://www.resco-net.com)) works with MPEG-1 files too, making it a good choice if your video needs are limited to MPG but you view a lot of still images as well.

If you need more flexibility, **PictPocket Cinema** (\$40, from [www.digisoftdirect.com](http://www.digisoftdirect.com)) works with MPEG-1, MPEG-2, MPEG-4, WMV, ASF, AVI and QuickTime (MOV) formats, plus a huge range of still image types, including BMP, TIFF, etc. As well as the usual zoom and rotate, the program allows image brightness and contrast to

be adjusted on the fly, and you can even download movies and images direct to your Pocket PC via Pocket Explorer. It can also output video footage from the handheld in VGA format, to either the popular Margei Presenter-To-Go card or a Colorgraphics Voyager CF card.

With additional capabilities to extract and save single frames, add annotations and more, PictPocket Cinema is perhaps the most powerful tool available for anyone wishing to handle a wide variety of video footage formats on their handheld.

Along similar lines to PictPocket Cinema above, **Pocket QuickView (PQV)** (\$20, from [www.bitbanksoftware.com](http://www.bitbanksoftware.com)) handles fewer formats (only AVI and QuickTime video), but adds a number of useful features for manipulating still images and slideshows.

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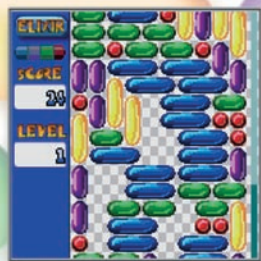


# two mad games



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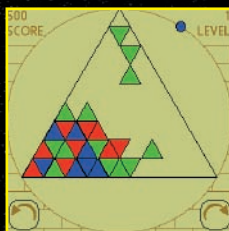
# The GAME ZONE

*The hottest new games on the handheld scene...*

**A**ll of these games are either new or have been significantly upgraded recently. Although colour screenshots are shown where possible, most games also work in monochrome.

## GTS RACING CHALLENGE (Palm OS)

This new car racing game takes on Digital Fiction's Race Fever and threatens to lap it. The physics behind the simulation aren't quite as good and there aren't the same cartwheeling crashes, but the action's very fast and smooth, and you do get to race sports cars and coupés in addition to Race Fever's Formula 1 cars. Eight tracks are available once registered. The texture-mapped surroundings are impressive enough in the low-resolution version that we played, but Astraware promises a hi-res version with proper digital sound. Highly recommended. \$18, from [www.astraware.com](http://www.astraware.com).



## TRICLOPS (Palm OS)

The latest in a long line of 'tap groups of matching tiles to remove them' puzzlers, Triclops adds an extra twist or three. The triangular playing area can be rotated at any point, giving you another chance to sort out problematic pieces as they tumble around under gravity. Continuing the 'tri' theme, there are three game types available: normal, frantic (larger shapes and almost no time before they overflow) and puzzle (all positions initially filled, no time limit and a goal of removing everything). Professionally put together, with proven gameplay. \$15, from [www.iscomplete.com](http://www.iscomplete.com).

## DERFFLINGER (Palm OS)

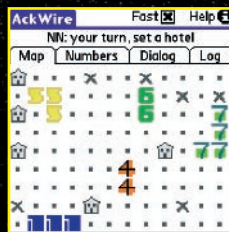
This unusual strategy game gives you control over a selection of civilian and combat vessels in an island-dotted seascape. Vessels can be moved around in order to reconnoitre and engage the enemy. A complicated set of rules and craft abilities take some time to master, and subtleties like harbours producing new ships add to the interest for fans of strategy games. The graphics are monochrome and low-resolution only, but turns happen every two seconds and the pace is kept admirably quick. Freeware, downloadable from [www.palmgear.com](http://www.palmgear.com).





## ACKWIRE (Palm OS)

Another complicated simulation from the same developer as Derfflinger, AckWire gives you as much time to think as you need. Playing against a number of other (computer) players, you create hotel chains and buy up shares in other people's. When chains get large enough and touch each other on the playing grid, they merge and shareholders get appropriate dividends. The interface is functional, and at least this time there's some colour to be seen. If you like numbers, risks and strategy, you'll find this intriguing. Freeware, downloadable from [www.palmgear.com](http://www.palmgear.com).



## INSANIQUARIUM (Palm OS)

'Aliens ate my goldfish'. No, not the title of the latest 'B' movie, but (almost) the plot of the latest Astraware epic. As the keeper of a tank of guppies, you need to keep feeding them, naturally. As they grow they drop coins, which you can collect to buy better quality food, a better 'laser', etc. Laser? Oh, yes, didn't we mention that you've got a laser gun to zap the aliens with? 'Aliens?' Oh, yes. And a host of other colourful characters with various rôles to play in your aquatic ecology. The action gets truly frantic towards the end of each level as you fight, feed and finance all at the same time. Another classic. \$15, from [www.astraware.com](http://www.astraware.com).

## HELI RESCUE (Palm OS)

Fancy yourself as an ace chopper pilot, braving enemy air defences to rescue comrades from hostile territory? Driven entirely by the hardware buttons, Heli Rescue looks and sounds impressive, with a digital soundtrack, sprite explosions and plenty happening on screen. There's surprising depth to the gameplay, too, with opponent tanks, planes, gun posts, etc. with differing abilities and intelligence, and 20 built-in missions. We found it difficult to control the chopper though—an autopilot or auto-height control would have made life easier. \$8, from [www.ellams.f9.co.uk](http://www.ellams.f9.co.uk).



## LUXOR POKER (Palm OS)

A polished version of the traditional computer Video Poker, Luxor Poker is slick and attractive on high resolution devices. Increase your bets to increase the possible prize money for winning hands, and there's a High-Low gambling game available every time you win. Nice touches include an auto-hold facility and mapping of the on-screen controls to your hardware buttons. \$7, from [www.aylin.biz](http://www.aylin.biz).



## SOLITAIRE ENGINE (Pocket PC)

Card patience (solitaire) remains one of the most popular games on just about every computer platform, including Pocket PC. This particular package offers a whole suite of popular card games, including old favourites such as Klondike, Freecell, Pyramid and Golf. Sporting fairly good graphics, unlimited undo, interchangeable decks and a configurable interface to accommodate left-handed players. \$15, from [www.runicsoftware.com](http://www.runicsoftware.com).



## CONCENTRATION (Pocket PC)

Concentration is essentially a straightforward memory game based on a familiar theme. Each time a square is tapped, an image is unveiled. If two identical images are tapped in sequence, both are cleared from the board. The game is over when all 24 pairs of images have been found in the 7x7 square grid and the board is cleared. A simple game, but nicely implemented with several graphics options, high score table, multiple levels and a timer to spice up the action. \$5, from [www.ceng.com](http://www.ceng.com).

## SPACE WARRIOR (Pocket PC)

The object of this action-packed space adventure game is to defend the Earth from space invaders by shooting them all within a designated timeframe. Gameplay is fast and furious, with four levels in each game session. Space Warrior has excellent graphics and should be a hit with all fans of space adventure games, not least because a well thought out, strategic approach is essential if victory is to be achieved. \$10, from [www.comcreation.com](http://www.comcreation.com).



## COCONUT ISLAND (Pocket PC)

Three games in one, this offbeat collection is probably designed to appeal most to youngsters. A fun, colourful, cartoon-style interface and amusing jungle sound-effects are common throughout, and all the games run in either single or two-player mode. Slingshot has you tapping on the screen to shoot coconuts with your catapult as monkeys throw them from the trees. Fruits Ahoy has a similar theme, but you have to catch the fruit falling from the trees by tapping to move your rowing boat. Finally, Coconut 4, by contrast, is a simple 'Connect 4'-style puzzle game. Good to keep the kids occupied on a long car journey. \$9, from [www.clickgamer.com](http://www.clickgamer.com).



## POCKET C64 (Pocket PC)

The ultimate retro gaming experience, this isn't a game in itself, but a full Commodore 64 emulator for your Pocket PC. The C64 was apparently the best selling branded computer in history, and there are almost 4000 games available, quite a number of which can now be obtained as freeware. Installation and setup of the emulator takes a little patience, but once up and running you get virtually all the functionality of the original computer, right down to an authentic miniature version of the C64 keyboard. \$7, from [www.clickgamer.com](http://www.clickgamer.com)



## SPAWN (Pocket PC)

Showing the usual polish we've come to expect from the ZIOsoft stable, Spawn brings comic-book third person shooters to the Pocket PC screen, requiring you to kick and punch your way from scene to scene. Super-smooth 3D rendering and animation, full soundtrack and cartoon cut-scenes all add to the experience, with the only real disappointment being the challenge of trying to control your character via a combination of the five-way navigation button and screen taps. \$30, from [www.ziointeractive.com](http://www.ziointeractive.com).

## EVERQUEST (Pocket PC)

The first in a trilogy, this is a fantasy role playing game that's exceptionally well implemented, with an excellent user interface and nice graphics. It's also very easy to learn, thanks to a good tutorial mode that automatically cuts in when you first start playing. Also, if you're frustrated with constantly getting killed in RPGs, 'death' in EverQuest merely takes away some of your points needed to reach the next level and sends you back to the start location. The biggest criticism is that it all comes down to combat in the end, with no puzzles to add variety to the gameplay, though there are four character types to choose from. But if you like killing orcs and giant rats, this game is a must. \$20, from [eqpocket.station.sony.com](http://eqpocket.station.sony.com).



## TERRA FORCE (Psion/Nokia/Sony Ericsson)

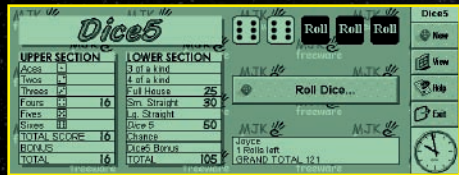
Terra Force, which started life as shareware for the Psion Series 5, has been revamped, released and remarketed for all Symbian devices. Psion users get the best deal, with separate versions for Revo, Series 5mx and Series 7, and they're all now freeware. The version for Series 60 devices is shareware at a mere \$5, and the wide-screen Nokia 9200 version weighs in



at \$10. The screenshot tells you most of what you need to know about Terra Force. It's a fast tank shoot-em-up, with first person perspective, texture-mapped surfaces and digital sound effects. There are several game types on offer, with a progression of levels that sees a choice of tanks for you to ride in and a variety of opponents, including attack helicopters. [www.wildpalm.co.uk](http://www.wildpalm.co.uk).

## DICE5 (Psion)

Despite the name, this version of the dice classic Yahtzee runs on all Psion palmtops, not just the Series 5. The usual combination of strategy and luck is as addictive as ever, and there are no unpleasant surprises in Dice5's touch-screen interface. Freeware, from [home.hccnet.nl/home.page/epoc](http://home.hccnet.nl/home.page/epoc).



## ASTRONIX (Nokia 9200)

More a puzzle than an action game, each move in AstroNix nevertheless has to be timed to perfection if you want to progress. Your spaceship 'releases' sectors of space from enemy ships and asteroids, any of which can intercept your line of travel and wreak destruction. Each level requires higher and higher levels of release before it's considered complete, and an extra element of strategy is brought in with the facility to buy ships, shields and 'freezes' between levels. The best bit about AstroNix is the fabulous set of space opera backdrops—the cut scenes genuinely add atmosphere. €15, for the Nokia 9200 series only, from [www.symbianware.com](http://www.symbianware.com).

## MGSKARTING (Nokia)

Running under the slick multimedia extravaganza that is Magic Game Station (MGS), Karting is an impressive arcade driving game, marred only by the action happening in a small square window in the middle of the communicator's wide screen in the 9200 version. Once registered, there are eight different tracks, six karts and eight drivers to choose from, each with their own characteristics. The sound and graphics are great, control of your kart is smooth, and getting round corners at speed is downright difficult. There are power-ups to be collected, shrink-rockets to be fired at your opponents and, best of all, you can race a friend via the wonders of Bluetooth (on the Series 60 version, at least). \$20, from [www.nmprod.com](http://www.nmprod.com).



## MOBILE VR POOL (Psion/Nokia/Sony Ericsson)

Also hosted by MGS on all Symbian platforms (up to and including the new Sony Ericsson P800), this is a fairly accurate simulation of 9-ball Pool. Using your communicator or smart-phone's navigator control, you spin the table round your cue ball and raise and lower your sight. Pressing and holding the spacebar or joystick sets the cue power and off you go. There's good use of perspective and genuine 3D graphics, although there's no facility to break away from the cue ball in order to view the table from another angle, or from above, and this makes the game overly difficult. As with other MGS games, having Bluetooth on board will let you play a friend. \$15, from [www.nmprod.com](http://www.nmprod.com).



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# An introduction to **Secure Digital**



*Steve Litchfield explores the miniaturised world of Secure Digital and SDIO expansion cards*

**O**n the offchance that you haven't come across them yet, Secure Digital (SD) cards are tiny, postage stamp-sized expansion cards, designed specifically for PDAs and other mobile computing devices. This in itself isn't enough to distinguish them from CompactFlash, MMC, Memory Stick, Memory Stick Duo, Smart Media and other competing formats, but SD has become something of a standard, now used in most modern Palm OS handhelds and Pocket PCs, and should be around for some time to come.

One big reason for the popularity with manufacturers (apart from the ultra-small size) is SD's backwards compatibility with MultiMedia Cards (MMC), a slightly earlier, thinner, memory-only format that has also achieved wide-

spread support (notably in the Nokia communicators and smartphones, plus various consumer devices). This backwards compatibility means that, for example, a Palm m515, an iPAQ 3950, a Nokia 9210 and a digital camera can all read and write files on the same MMC. Do note though that the extra thickness of SD cards means that they won't usually fit in slots designed for MMC, such as on the Nokia 9210.

## **The need for speed**

The same height and width as MMC, the extra thickness of Secure Digital cards allows more ambitious circuitry, such as a 4-bit data bus, raising the theoretical maximum throughput to an impressive 10MB per second (compared to a maximum of 2.5MB per second for MMC). Be aware that the speed of



a PDA expansion card is not usually the limiting factor when considering the speed at which applications work. For example, there's little difference in application speed on a Palm m500 series handheld when comparing an MMC and an SD card, due to the relatively slow processor. Put the same cards in a Palm Tungsten T or Pocket PC though, and you'll find that SD file operations take less than half the time of the same activities using an MMC. Even here, the absolute speeds achieved are far short of the theoretical maximum, with both the Tungsten T and a modern iPAQ managing only around 400K/sec on average.

This is still pretty fast though, and more than enough for video playback, voice-guided navigation and other demanding applications.

## Security? What security?

The much-vaunted security features of the SD format have so far proved to be rather irrelevant to most users. Secure Digital cards have, according to the specification sheets, "cryptographic security for protection of copyrighted data", and there's a few hundred kilo-

bytes set aside on each SD memory card to facilitate this protection and encryption. The aim of the feature was for publishers to produce software and media products on SD card, fully protected against casual copying and piracy. Nothing wrong with the aim, then, but in reality almost all the card-based programs and suites have so far been produced on MultiMedia Cards, with developers completely ignoring Secure Digital. And we've seen nothing at all using SD from the music industry.

The costs of licensing the encryption software and programming in proper SD support have undoubtedly been enough to put most developers off. And of course there's the Internet factor, with the vast majority of software for all platforms now available for direct download. Why buy a card-based product unseen and wait two weeks for delivery when you can download a trial version, install it in under a minute and purchase at leisure?

Also in SD's 'secure' feature set is a write-protect switch, rather like the one on PC floppy disks—flick this to 'Lock' and all files on the card are write-protected. In reality, it's hard to see who might use such a feature. For all but the most paranoid users, having to eject an SD card, unlock it and then reinsert it again every time you want to change a file or install a program is of limited value.

Finally, the thicker casing and design of SD cards means that they're theoretically more durable and resistant to electrostatic discharge, although we've had no first-hand experience of MMCs being damaged in this way.



## In and out

Of course, there's more to SD than just memory cards. SDIO (Secure Digital Input Output), when supported by a handheld computer's operating system, makes it possible to use an SD slot to host an accessory, such as a digital camera, Bluetooth or Wi-Fi network adaptor. Good examples of the breed at the time of going to press include the Veo Photo Traveler and Socket Wireless LAN card, but there are more accessories arriving by the month. There's a full list of all companies producing SD-related products at the official Secure Digital home page, [www.sdcard.org](http://www.sdcard.org).

It's very important to check with the makers of your handheld before purchasing though, as some handhelds (e.g. the iPAQ 3800 and 3900 series) don't support SDIO. You should also be aware that a substantial part of the accessory may protrude from the SD slot, spoiling the look of your PDA and possibly fouling your case.



### Price—the time is right...

If you've been put off expanding your PDA storage with an SD memory card in the past due to their relatively high price then think again, as prices have been steadily falling. It's now possible to buy a 128MB card for around £40, with sizes up to 512MB now commonplace (expect to pay around £250) and larger capacities on the horizon.

From a practical viewpoint there's generally little or nothing to choose between different brands of SD memory card (provided you choose a manufacturer with a proper warranty, of course) and any SD-compatible PDA can use disks of any capacity from any manufacturer.

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# Scribble and JOT

Anne Johnstone investigates 'writing' on your PDA screen, the demise of Graffiti, and the rise and rise of Jot . . .

**H**andwriting recognition or, more accurately, **gesture recognition**, has been an integral part of Palm OS since the very beginning, and indeed it forms three of the four alternative input systems supplied with modern Pocket PCs. With the first appearance of a similar system on Symbian devices, in the shape of the Sony Ericsson P800, it would seem that most of us will be scribbling text onto our handheld screens for some time to come.

Given that Palm OS is really the birthplace of the concept of entering 'letters' directly on a PDA screen rather than via a keyboard, there is one recent event that is already beginning to have an effect on the way many of us enter text into our handhelds...

## The rebirth of Graffiti

The battle for Graffiti is one that had been brewing for some time. Since 1997, in fact, when Xerox sued U.S. Robotics (which was then bought by 3Com, which in turn devolved into Palm), claiming that its Graffiti character recognition system infringed the Xerox 'Unistrokes' patent. Whether or not Xerox has a case is a matter for the lawyers, but Palm seems to have been gradually getting more and more worried about the lawsuit and the potential costs and reparations.

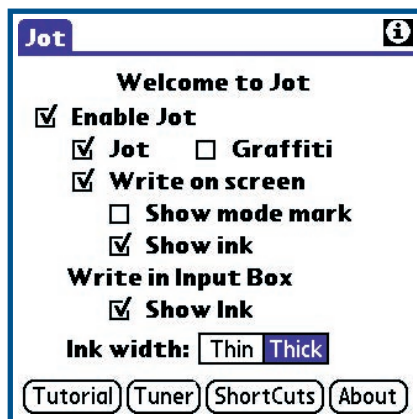
So much so that in January of this year, PalmSource licensed Jot, a competing character recognition system from CIC, for use in future models and versions of Palm OS. It's easy to see this as Palm's way of sidestepping the issues of the patent case, but in fact the switch to Jot does have a couple of other advantages.



Firstly, Jot has become something of an industry standard. Other companies, perhaps looking to avoid the minefield of copyrighted input techniques, have opted instead to pay CIC to use their Jot system. Microsoft licensed it for all Pocket PC handhelds and Symbian licensed it for its operating system, starting with the touch-screened Sony Ericsson P800 (the Nokia communicators and smartphones don't have touch-screens, of course). And now Palm itself completes CIC's cross-platform coup, with its marketing department rather cheekily re-branding Jot as 'Graffiti 2'. From a user's point of view, it's now possible to switch between a number of completely different handhelds without having to constantly adapt their writing style.

Secondly, Jot is arguably easier for beginners to get to grips with, being slightly closer to the standard letter shapes that we all learnt at school. Admittedly, a few characters now require two stylus strokes where the original Graffiti needed only one, making Jot a little slower, but at last we'll now start to see whether learning Graffiti was an issue for new purchasers after all.

It's worth noting that Jot does not recognise handwriting (i.e. your natural letter shapes), and you can't write cursively (i.e. joined-up letters). Like Graffiti, there are standard gestures and shapes to learn. In fact, there are a few more, as you can write in lower or upper case (with position on screen determining the case entered on the handheld). Like Graffiti, there are a few alternative ways of writing each character and, like Graffiti, it'll take you a little while to achieve error-free input.



### *Setting up Jot on a Palm Tungsten T*

Although the original Graffiti technology allowed entry of gestures anywhere on screen, Palm deliberately limited it to the special Graffiti area, in order to keep stylus scratches away from the main display area and to simplify the way applications looked for stylus input. Jot, on the other hand, has generally allowed full-screen input as an option, with real-time echoing of each stroke, potentially improving your accuracy. It's possible to do this on existing Palm OS handhelds, but only with the aid of a freeware utility.

Jot comes with an animated tutorial that shows each character's shapes and strokes being written, a slightly friendlier presentation than simply showing gestures with a starting dot for each stroke.



*Some Jot/Graffiti 2 character shapes...*

The downside of switching away from the original Graffiti is of course that millions of existing Palm owners will have to change their ways when upgrading their handheld in the future. These people will then have to decide between opting for the latest technology and functions or sticking to older, more basic handhelds, made before the Graffiti switchover.

PalmSource has built Graffiti 2 into two new versions of its operating system: Palm OS 4.1.2 for Dragonball-based handhelds and Palm OS 5.2 for ARM-based ones. The Zire 71 (see page 29) is the first handheld from a Palm OS licensee to use the new system, and the very latest Palm Tungsten C (see page 32) is the first Palm OS device with Jot but no dedicated writing area.

Existing Palm OS users who want to take the step now and start learning Graffiti 2 should note that Jot 2 (essentially the same product) is available from CIC ([www.cic.com](http://www.cic.com)) as a standalone product for older handhelds.

## Beyond Graffiti 2...

Interestingly, it seems that Jot/Graffiti 2 may itself be only a stop-gap. According to Lee Williams, a vice president at PalmSource, it is looking into a fully-trainable input system, in which your handheld would learn the way you naturally write each letter—after all, the ‘P’ in PDA does stand for ‘Personal’.

## ...and beyond Palm OS

With all this talk of Graffiti and Jot, you might be forgiven for thinking that these were the only options for keyboardless entry on a handheld. Far from it, and not only are similar systems available for Pocket PC devices, but on-screen text entry systems even exist for keyboarded Psion devices.

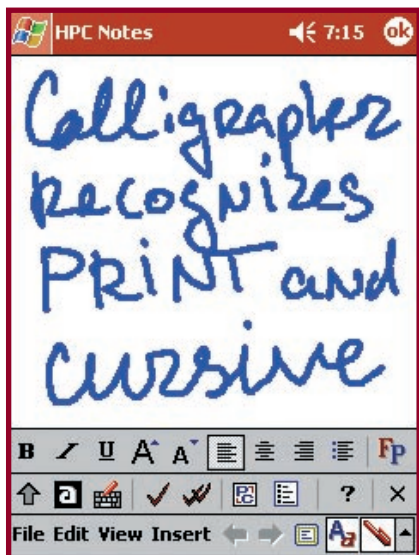
Pocket PC’s own built-in Block Recognizer is really just the original Graffiti by another name. Clearly designed to ease the transition for Palm OS users migrating to Pocket PC, it works for all the basic Graffiti strokes, but frustratingly refuses to accept many of the lesser-known alternative strokes that long-time Graffiti veterans will have adopted to hone their input speeds.

Letter Recognizer, also an integral part of modern Pocket PCs, is similarly Graffiti 2/Jot in disguise. It lacks the flexibility to simply scribble anywhere on screen though, being limited to a window at the bottom of the screen, just like the original Graffiti.

For Psion users, a number of text alternatives appeared over the years, though some have since disappeared (including Purple Software’s reasonably good Allegro) and others were fairly primitive in their operation and their accuracy was poor by modern standards.

## Letters, not gestures

If you dislike the whole concept of learning special ‘gesture’ shapes rather



#### *Calligrapher offers improved accuracy*

than just writing normally, workable solutions are available for both Pocket PC and Psion handhelds, though the value of such a system on a keyboarded Psion device is rather dubious.

## Transcriber vs Calligrapher

The built-in Transcriber in modern Pocket PCs does a reasonably good job of turning either standard scribbled letters or (to a lesser degree) cursive handwriting into 'typed' text. To maximise Transcriber's accuracy it's important to carefully follow the setup instructions included in the online help system, and to invest 10 minutes or so to configure the program's 'Letter Shapes' utility to your own preferences.

If you've spent some time with Pocket PC's Transcriber but are still disappointed with its accuracy, PhatWare's Calligrapher ([www.phatware.com](http://www.phatware.com)) is well worth a try. The system still isn't infallible and, as you might expect, it's more accurate when entering single letters rather than joined-up writing, but it's a definite step forwards from Transcriber and includes some useful extra features, including a good macro facility for entering commonly-used phrases.

## Keep it tidy!

In the final analysis, 'real' text input systems such as Transcriber and Calligrapher still require you to enter text in a fairly deliberate and tidy fashion if you're to achieve close to 100% accuracy, and if your normal handwriting is unintelligible to other humans then the chances are that no PDA input system is ever going to recognise it either.

## Scribble or type?

Despite the recent fashion for miniature keyboards, which are undoubtedly faster for most people than any standard gesture or writing system, the sheer elegance of tablet-like devices which are almost all screen may yet win out in the end. Within a few years, I'd expect foolproof recognition of natural handwriting, and workable voice recognition on all handheld platforms. Not only will Graffiti then be dead and buried, but the QWERTY keyboard too, and mobile computing will be heading firmly into the realms of what was previously just science fiction.

# Getting to grips with HanDBase 3

*In the third part of this series, Josephine Doran continues her beginners guide to using this powerful database application for both Palm OS and Pocket PC*

**L**ast time around we completed the basics of a very simple database to keep track of a CD collection, and looked at a few of the ins and outs of different field types. In this issue, we'll concentrate primarily on how to change the way that data is presented.

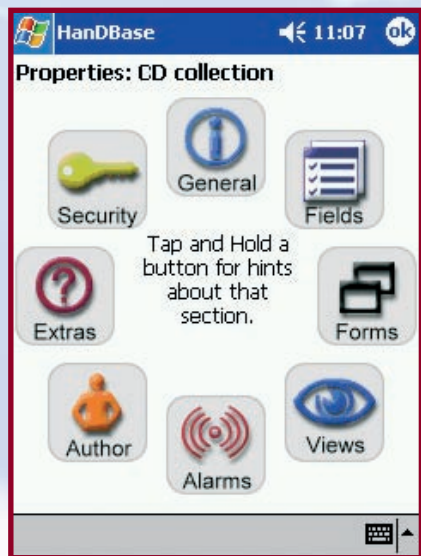
## Custom views

So far, we've added new records (in the 'Record View') and then seen a list of these displayed in the spreadsheet-like 'List View'. We've seen how to sort records into ascending or descending alphabetical order in the List View and change column widths by dragging the field headings.

Beyond these simple techniques, HanDBase has a slew of powerful features for changing the way your data is presented. In the next instalment we'll show how to customise your data entry screens using the HanDBase Forms Editor, a PC desktop application that allows you to rearrange fields and labels on screen, create colour backgrounds

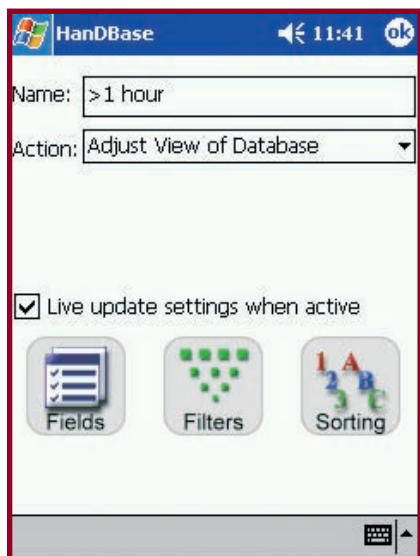
and buttons to perform navigation functions, and generally make your databases more elegant and easy to use (see screenshot on page 72 of our 'More Data' article in this issue).

First though, we'll show how you can use the handheld's built-in 'Views' feature to add new windows onto your data



*About to select the 'Views' option*





*Ready to set up the new view*

that present the fields you want, in the order you want, with sorting and filtering criteria in place.

To access the Views setup screen on a Palm OS handheld, go into HanDBase's 'Choose Database:' screen. If you've already got the CD database open, tap on the 'Home' button at the bottom left of the screen. Then, tap on the 'Details' button at the bottom right to open the 'Properties' screen. From there, select the 'Views' option at the lower right.

If you're running Pocket PC, open the CD database and choose 'DB Properties' from the 'File' menu, then choose 'Views' as above.

Once you've tapped on 'Views', you'll be taken to the 'Select a View' screen, from where you can add as many new views as you like. To demonstrate quickly what this concept of views is all about, we'll

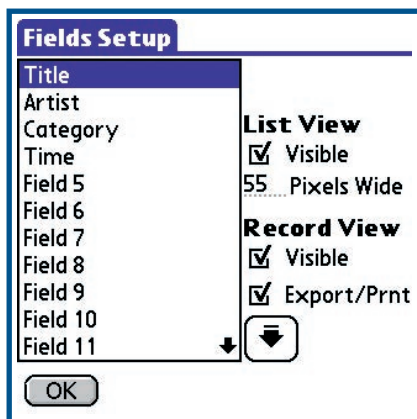
add a new one that shows just those CDs in our collection that are longer than an hour.

## Adding a new view

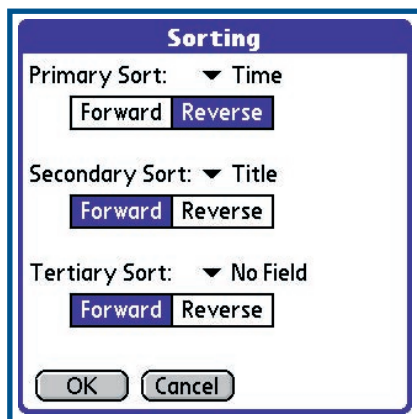
From the 'Select a View' screen, tap on the 'New' button (or menu option for Pocket PC) at the bottom of the screen. From there, enter ">1 hour" on the 'Name:' line at the top. The next line, 'Action:', gives us the option to either change the way this view presents the information from our existing database, or switch to a completely different database. We'll look at the second option later in the series, but for now leave this option set to 'Adjust view of Database', and leave the 'Live update settings when active' option checked.

To set up the view, we then need to configure the three areas at the bottom of the screen: Fields, Filters and Sorting.

Tap on the 'Fields' option to choose which of the four data fields we want to appear in the new view. For this example, we're really only interested to see a summary of which CD titles are more than 60 minutes long, so select each of the four fields in turn: Title, Artist, Category and Time—and make the 'Visible' option for List View checked for the 'Title' and 'Artist' fields only, but check all four in the 'View' option for Record View. This means that when we look at the listing of hour-long CDs in List View, we'll see only the title and length, but if we then tap on an individual record from there, we'll still be able to see (and edit) all four fields in the Record View. Leave all the other settings unchanged, then tap on 'OK' to go back to the previous screen.



*Choosing which fields to show in the new view*



*Setting the sort order for displayed fields*

Next, we'll go into the 'Sort' option (labelled as 'Sorting' in the Pocket PC version). This doesn't affect the way our data will look in Record View, but will pre-sort all the entries in our List View to save us from having to tap on the field headings and sort manually.

Tap on the appropriate icon, and set the 'Primary Sort:' option to 'Time', and set the box below it to 'Reverse'. This will sort our CDs in order of the value set in the 'Time' field, with the longest ones at the top of the list. Because this is set as the Primary Sort, it will do so regardless of what appears in any other field.

Next, we may as well set the 'Secondary Sort:' option to 'Title', with the order left as the default of 'Forward'. This means that if we have several disks of the same length (i.e. a 'Time' field of the same number of minutes), those entries will be sorted in A-Z alphabetical order of the disc titles.

Now tap 'OK', and go into the 'Filter' option (again, named slightly differently

as 'Filters' in the Pocket PC version). This is where we want to set the view to show only those CDs that are more than 60 minutes long, so tick the checkbox for 'Filter 1 Enabled' if it isn't already, and set 'Select Field:' to 'Time'. This then presents us with filtering options that are suitable for this particular field type, in this case upper and lower limits for the 'Time' value.

Our lower limit should of course be set to 60, so as to omit those CDs that are shorter than one hour. Remember, we're not removing any data here or deleting records—each view simply changes the way the data is displayed. There won't be any discs that are much over 75 minutes in length, so we can safely set the 'Upper Limit' box to a slightly higher number, such as 100. We won't be adding any additional filters on this occasion, but note that you can create up to six, thereby extracting only those records that match the exact range of specifications you set. We'll go into more depth on advanced filtering in a future instalment.

**Filters F1**

☐ ☒ Filter 1 Enabled **NOT**

Select Field: ▼ Time

▼ Lower Limit: 60

▼ Upper Limit: .....

☐ Filter 2 Enabled

OK Cancel Disable ▼

### *The final step—setting up filters*

To complete the setup, tap 'OK' repeatedly until you get back into the CD database (in the case of Pocket PC), or the list of installed databases (in the case of Palm OS).

## Testing, testing

Now, to show our new view in action, open the CD database if it's not already, and tap to open the pick list at the top right of the screen, which will currently be showing 'Default View'.

Your new '>1 hour' view will now appear as an option, and selecting this will instantly bring up a list of all your 60+ minute CDs, in descending time order, shown next to each disc title. Tapping on an item to jump to Record View will show all four fields rather than just the 'Title'

and 'Time' values, reflecting what we set up in the Fields screen earlier.

While we're in the new view, you can drag the field headings to change the relative widths of 'Title' and 'Time' values, and HandBase will 'remember' the widths you have set whenever you return to this view. Also, you can still tap on the field headings and set a new sort order for the selected records, though of course this view will still show only the items that match your previously set filter criteria.

Beyond this trivial example of views that we've used to explain the principle, there are many powerful applications for this technique. For example, we could set other new views to show only the CDs that fall into one of the multiple-choice categories we set in the last instalment, such as 'Popular', 'Jazz', and so on, sorted into whatever order we choose. Also, we could set up a few individual views to show only those CDs by specific, favourite artists.

HandBase will of course allow us to filter and sort our data at any time, but adding custom views makes it ultra quick and easy to access a pre-set batch of criteria with a single tap.

Once you've done it a few times, setting up a new view can generally be done in under 30 seconds, making it easy to add new windows onto your data to your heart's content.

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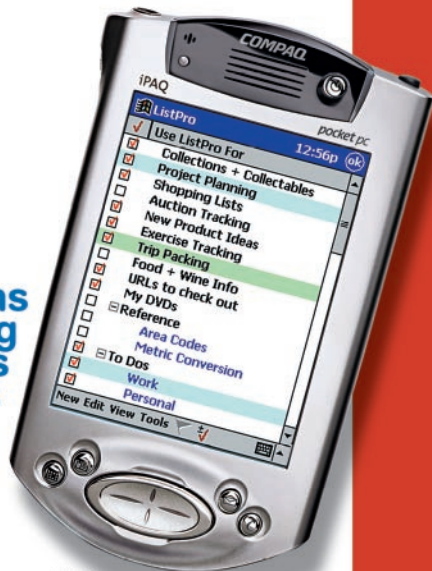
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*Pointtop User*

# Working with HandStory

*Paul Nelson offers some insights into the universal scrapbook and news reader for Palm OS and Pocket PC*

**B**illed as the “Swiss Army Knife of media viewers”, HandStory mixes in a number of features that appear in other programs, plus a few of its own. Collectively, HandStory makes an immensely useful tool for Palm OS and Pocket PC users.

## Snip and clip

To understand the aim of HandStory, think of it primarily as a place to store and view snippets of useful information. That information can take the form of text or HTML content grabbed from your PC or Apple Macintosh, blocks of text or HTML copied via your desktop clipboard (much like the Psion CopyAnywhere feature), or any of a number of compatible image formats, again taken from your desktop. PC users can also download optimised web content in the form of newfeeds, much like AvantGo. If your PDA has a wireless Internet connection you can even download news items without recourse to a PC.

In addition, HandStory throws in a basic ‘Doc’ (.pdb) format ebook reader for good measure.

## Versions and platforms

The features listed above are all present in the full ‘HandStory Suite’ version of the product for Palm OS and Pocket PC, which is available for \$30 (from [www.handstory.com](http://www.handstory.com)). A free version, HandStory Basic, is also available, and this understandably omits a number of features, most notably the ability to update Web clips automatically on a daily basis, save clips and ebooks directly to expansion card, crop and preview images and save them at high resolution, and the ability to right-click on suitable file types from within Windows to save them directly into HandStory format for the handheld.

There are also a number of formatting and navigation options for the handheld version that only work within the full HandStory Suite version. Needless to say, if you find yourself using HandStory on a regular basis, it’s well worth investing in the full version.

The Apple Macintosh version of the desktop companion software (for both OS 8.6-9.x and OS X) does not at present include the Web clip feature of the Windows PC version.



*Saving a text file ready for synchronization*

## Click, drag or clipboard

To get text (including HTML) and images onto your handheld from a desktop computer, both PC and Mac versions of the desktop software provide easy options. On a PC you can right-click on a text file or image and select the 'Save to Palm' or 'Save to Pocket PC' option, and on a Mac just drag the file to the HandStory icon on your desktop. This will then convert and save the file into a format that's ready to be saved to your handheld at the next synchronization, where it can then be viewed with the HandStory browser.

Even more useful, any block of text from virtually any application can be copied to your desktop clipboard using the

Instead, the only response you're likely to see is another press release about how well the Suburban is selling.

But enough history. The future of ultimate pony car performance rides on the original pony car, along with some help from Ford's Special Vehicle Team. SVT has taken a page from the aftermarket and mounted an Eaton Roots-type blower on top of the Cobra's 4.6-liter V8. To cope with the extra stress created by 390 prancing

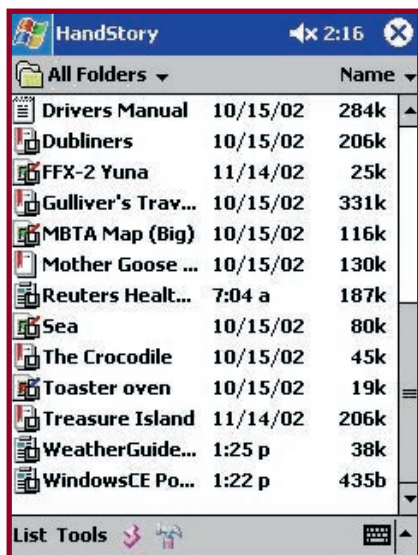


*Viewing text in the Palm HandStory browser*

usual 'Copy' command, then converted and transferred to your handheld with a couple of clicks and a synchronization. The big benefit of this feature is the ability to grab interesting snippets of text from web sites, text files, emails, word processing documents—almost anywhere. If you see something on a web site that you don't have the time to read straight away, turn it into a HandStory clipping and go through it on your handheld when you next get a spare moment. If you subsequently want to keep all or part of the text, you can either leave it in HandStory format or copy and paste it into another application on your PDA.

## Image grabber

Images are handled in much the same way as text, with HandStory coping happily with a range of formats, including BMP, JPEG, GIF, TIFF, PNG and even native Photoshop format. With the full version of HandStory Suite you can pan and crop images too—selecting



*A list of HandStory clippings on Pocket PC*

just the part you need at the resolution you need. You can also capture large images and then pan around them on your handheld, particularly useful for maps and schematics.

As with text clippings, the variety of uses for grabbed images is enormous, from taking a map of street directions off a web site to getting images from your digital camera quickly from a PC or Mac desktop onto your PDA.

## News and web

Although HandStory can't currently compete with AvantGo ([www.avantgo.com](http://www.avantgo.com)) when it comes to getting a wide range of handheld-optimised news content onto your PDA, the number of HandStory 'channels' is increasing at a healthy rate. Choose as many as you like from almost 250

newsfeeds, ranging from the BBC and USA Today to entertainment, sports and technology, then have HandStory's PC desktop component automatically download and transfer updates into your handheld every day.

HandStory can even extract the text content from ordinary, non-optimised web sites, drilling down as many levels into the selected site as you wish, complete with hyperlinks. It's not as effective as using a product such as iSilo ([www.isilo.com](http://www.isilo.com)—see 'Working with iSilo' in issue 1), but generally works acceptably if you don't need to extract images as well.

## ...and ebooks too

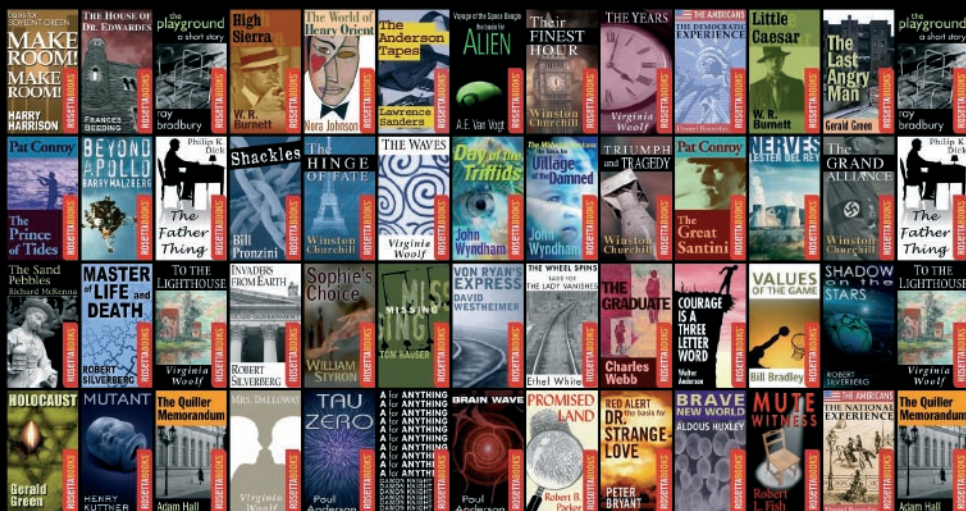
Perhaps the least significant part of HandStory, the handheld browser application can also be used to view and read ebooks. It only supports texts in unencrypted (Palm) 'Doc' format, but this represents a huge body of out-of-copyright works, some of which can be downloaded directly from the HandStory web site.

Other useful features of HandStory include the ability to sort, search, bookmark and generally organise your library of clippings.

## The universal scrapbook

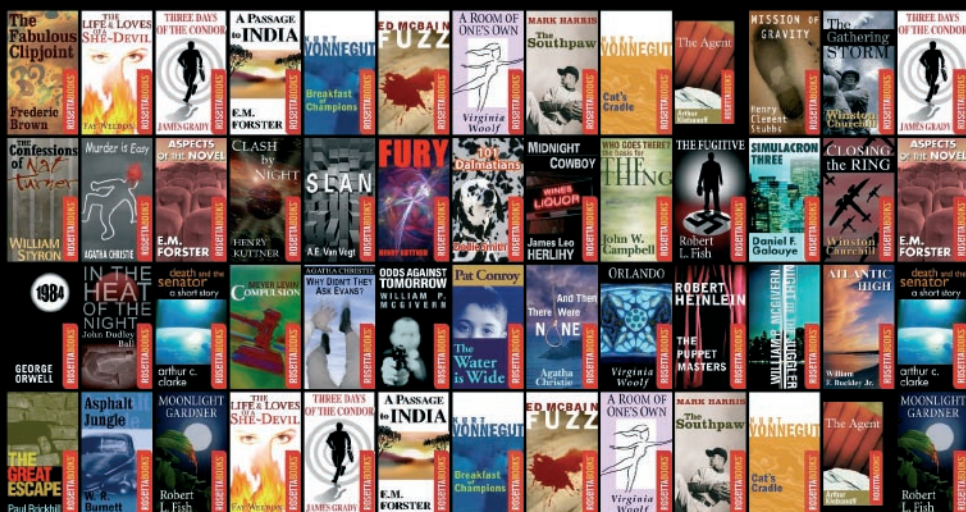
Overall, you can think of HandStory as something of a universal scrapbook, where you can store and view a range of information types—many of which you might otherwise overlook, if it were not for the ease with which HandStory can 'grab' these items from your desktop.





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# Worth a Read

John Woodthorpe takes a regular look at the ever-expanding world of electronic books



One of the most popular web sites for those of us who read science fiction is the Baen Free Library at [www.baen.com](http://www.baen.com). One reason for that popularity is the stock of modern science fiction which can be bought in electronic or paper form. Another reason is the selection of free titles that are made available, and in particular the decision to release their second CD collection. Normally these are provided when a paper copy of certain books is ordered from them, but the most recent one is now springing up online for free download as an ISO image ready for burning to CD.

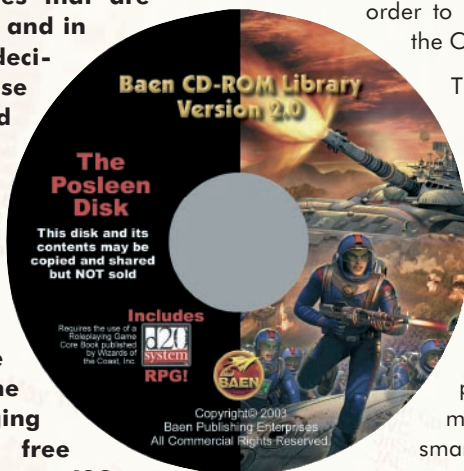
Usually, accounts of events such as this would continue by explaining that it's illegal, and that obtaining a disc in this way is depriving Baen of income that sustains its service. However, that's most definitely *not* the case here. The CD proudly proclaims "This disk and its contents may be copied and shared but NOT sold"

NOT sold", so free distribution is positively encouraged.

The latest CD contains 27 books in six different formats: Mobipocket, HTML, RTF, Microsoft Word, Rocket eBook and Microsoft Reader. None of them are encrypted or protected in any way, so there's no need to get registration codes or make any other contact with Baen in order to enjoy the works on the CD.

The Mobipocket format is perhaps the most interesting here, since, as discussed in the previous issue, the reader software is available for a large range of platforms, including most of the Symbian smartphones. This wide range of formats means that the books can be read on more or less any PDA or PC, regardless of operating system.

The CD also contains MP3 versions of a few books and audio selections from others, together with some images of the covers and screen savers for Windows and Mac OS to round things off. There's even a rôle playing game included on





***Reading one of the free Baen books using Mobipocket reader on a Palm OS handheld***

the disc, though it requires a specific rôle playing book in order to play. Everything on the disc can be accessed from a web browser front end, and the whole thing works extremely well.

Baen makes a lot of fuss over this CD, and rightly so. The company has certainly taken an encouraging approach to the issue of piracy, Digital Rights Management, and protecting its works. The company's argument is that "the more you give, the more you get back", and this has created a huge amount of positive interest. Naturally, Baen hopes that the CD will encourage people to buy some of its other titles, but there's no hard sell or strings attached to this. If you are interested in accessing other Baen titles, you can subscribe to its web-based service at [www.webscription.net](http://www.webscription.net), which gives you access to advance electronic versions prior to their availability on paper and costs \$15 per month.

The CD has recently been added to the list of files available at

<http://f.scarywater.net>—look for the 600MB Baen Aldendata ISO file. It's available there as part of a relatively new peer-to-peer file sharing application called BitTorrent, and to get the CD image you need to install the BitTorrent software from the links at the top of the relevant page. BitTorrent says it is "free, open source and not spy/adware ridden", and the files hosted there are all free of charge, publicly available, mirrored there to help reduce the load on the servers hosting them.

Once you've installed the software, you download a 'header' file that then triggers the download of the full image in chunks that are assembled into the complete version. As you download the file, part of your bandwidth goes to uploading it for others. That will slow the download a little, but it's a small price to pay for the increased robustness of the whole process. Having tried it myself, it went very well, and resumed correctly after a couple of interruptions. I confess that I've always regarded peer-to-peer file sharing as being of dubious value, but I can now see a real benefit in providing very large, popular files to others without overloading the servers hosting them.

There's just one problem with all of this. I'm now finding it harder and harder to handle all the ebooks I want to read on my ageing Palm IIIc, and as my Psion 5mx is now getting a little elderly too, I think I'll have to invest in a handheld with more memory. More seriously though, if you're at all interested in science fiction works then this CD really is an offer you shouldn't refuse.

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# On the nET

by Pete Sipple

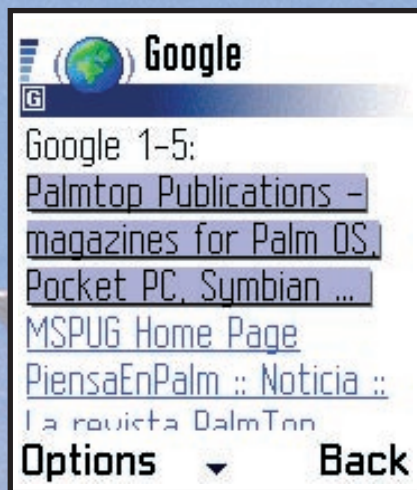
Our regular look at what's happening online and where to point your browser

## Make WAP worthwhile

When WAP, the 'Mobile Internet' for handhelds, first arrived on the scene, anyone expecting a multimedia experience was in for a disappointment. Once we re-aligned our expectations, many of us found that, although WAP was slow and unexciting, a few WAP pages were genuinely useful, such as news headlines, sports results and travel information. There were still two problems however: a lack of actual content (as WAP sites need to have their text specially formatted), and the absence of a decent search engine. To some degree, both of these problems have now been solved, by **Google**.

Entering the address of [www.google.com](http://www.google.com) into your WAP browser takes you to a special version of the Google search page that is specially optimised for use on mobile devices. The search engine works just as the one you use from your web browser, but web content is reformatted via a proxy service so that you can view it over WAP. Essentially, this means that you can now get to any web page from a WAP browser, opening up a whole host of extra content, accessing your favourite web sites on the move. It was possible to do this in the past with the rather clunky Web2Wap service, but

now it's as easy as entering what you're looking for straight into a search engine. The downside? It's free from images, and if the web page has a complex design, the layout can appear a bit odd. It's perfectly acceptable though, and better still, the resulting pages can be bookmarked for fast retrieval. Mobile Google also offers the option to search only for WAP content, and has a handy number input method for faster typing, allowing you to enter a word such as "palmtop" using the keypad numbers "7256867".



Google searching over WAP

## Recent sightings

Following on from our Sound & Vision article on page 73, for a top site with a wide selection of video clips full of trailers, comedy bits, TV commercials, 3D animations and more, take a look at **PocketMovies** ([www.pocketmovies.net](http://www.pocketmovies.net)). Though aimed at Pocket PC users, the files are in MPEG-1 format, which can be encoded by Kinoma Producer for playback on Palm OS devices or Multimedia Converter for the Nokia 9210.

Too many TV channels to keep track of? Forget spending out on a TV listings magazine each week—just use your palmtop to download TV listings, and even use it as a remote control. Solutions include AvantGo, web, WAP and the BBC's electronic Radio Times. The **Radio and Telly** site ([www.radioandtelly.co.uk/guides.html](http://www.radioandtelly.co.uk/guides.html)) provides details of what's on offer for the mobile user, screenshots, and help on how to get set up. TV addicts can now move to a paperless world, and never need to take a trip to the newsagents again!

Themes are fast becoming the equivalent of mobile phone ring tones for your Pocket PC, a way to express your individuality by brightening your Today view. **PDAGold** ([www.pdagold.com/themes](http://www.pdagold.com/themes)) offers one of the largest collections of free-to-download themes, over 3600 at last count. Amongst other content, the site also includes details of how to create your own themes, plus ratings and popularity charts, and listings of the newest themes to arrive. Currently, the top five categories are People, Computing, Art, Nature and Places.



If you have an interest in the future of PDAs and mobile communications, you'll probably enjoy taking a browse around the pages at **TheFutureLook** ([www.thefuturelook.com](http://www.thefuturelook.com)). A self-explanatory name for a site brought to you by the people behind UK retailers Dixons and The Link. To get deeper than a few pages you'll need to register at the site, which is free, and this also subscribes you to a rather interesting monthly newsletter.

On the site itself, you'll find details of the current 'intelligent' phones on the market, sections on 3G, Symbian OS, satellite communication, Bluetooth and Wi-Fi, plus some information on MMS and its use on Pocket PC phones. Taking a look in 'The Future', the dedicated section looking at what's in the pipeline, reveals early information on the first ever TV phone, due soon from Samsung,



and Sanyo's surveillance RoboDog, which sends video images of intruders to your 3G mobile. A page that especially caught my eye was one detailing a product called

'Purring Kitty', a downloadable Java application that brings a whole new meaning to User Interface. Interested? See 'The Services' and find out more.

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# Hints & Tips

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## Quick sharing

### Palm OS

The advent of cheap infrared USB adaptors (and not-so-cheap versions for Bluetooth) has made it easier than you might think to get information to your desktop and other computing devices. For example, beaming an individual Date Book or To Do List entry sends over an industry-standard vCal file which can be understood by most desktop PIMs. Similarly, Address Book beams over a vCard entry and Memo Pad beams a plain text file. More impressively, the Palm Tungsten T's Note Pad utility beams over a standard PNG graphic and its Voice Memo sends a Windows WAV audio clip.

If you're in a rush and haven't got time for a full HotSync, or if you want to get

information to someone else's desktop or laptop computer then this interoperability is really useful. And because all the above formats are now fairly universal, you can even beam all of these entries and objects over to Symbian and Pocket PC handhelds as well.

*Steve Litchfield, editorial staff*

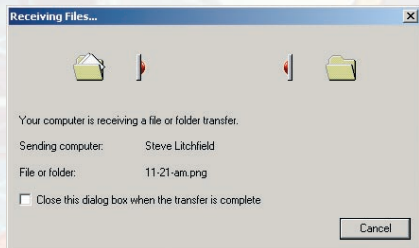
## Oh yes it can!

### Palm OS

Your review of the Palm Tungsten T missed an important trick. For use in 'closed' mode, there's no need to map one of the hardware buttons to Applications after all. Pressing and holding down the Navigator button brings up Applications in the last category viewed, and pressing and holding it again brings up the category pick list. This behaviour is detailed in the manual.

*Peter Best, Oxford*

*Editor: In fact, we knew about the trick but couldn't get it to work on our (early) review unit. We've now established that this feature does indeed work on production models of the Tungsten T.*



***Beaming a quick sketch onto a PC desktop***



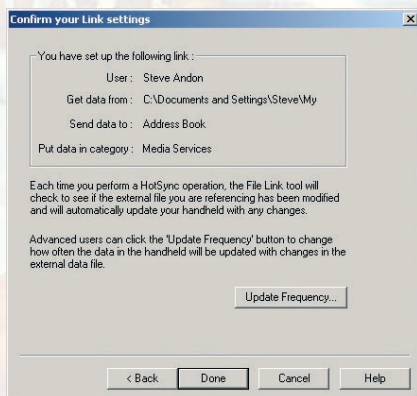
## Updating the office

### Palm OS

In our small office, I'm responsible for keeping a central directory of company personnel, contacts and resources. Most people use Palm OS handhelds and I've found that using Palm Desktop's File Link, it's easy to keep everyone up to date without them having to lift a finger.

I keep the directory in a PC database, exporting as a single comma-separated text (CSV) file. On each user's desktop, I then right-click the PC HotSync Manager and choose 'File Link'. A wizard-like set of dialogs then let me point to the master CSV file on our network and set up an association with a new category (e.g. 'Media Services') inside the user's Address Book. All our staff can thus make changes to their Address Books in the normal way, using all the other categories, while the 'Media Services' category is updated at each HotSync with the latest directory information from my master file.

Steve Andon, Newport, Isle of Wight



*Using File Link to integrate handhelds*



*Better alarm and reminder control from the DateBk family*

## Alarms and more alarms

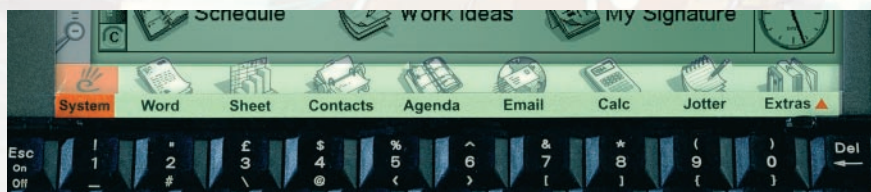
### Palm OS

I know a number of people who either have Handsprings, which have Date Book+ built-in, or have installed DateBk3, 4 or 5 (from [www.pimlicosoftware.com](http://www.pimlicosoftware.com)) on their Palm handhelds. The Alarm Preferences dialog is often overlooked, but I've found that having a separate 'Remind Sound' can be invaluable. How many times have you been in a noisy environment and missed an alarm because you couldn't hear the original or its repeats? If you then vow to use something really loud and distinctive, it'll probably ring out in a quiet office meeting and distract everyone.

The answer is to set your DateBk Alarm Sound as something quiet and discreet, and your Remind Sound as something loud and musical. With this set to follow a minute after the original alarm, you shouldn't miss that meeting after all.

Gregory Lake, Kansas City, Kansas, USA





*Restoring access to the Psion icon bar using keyboard shortcuts in place of a broken touch-screen*

## Broken touch-screen?

### Psion

One of the most common terminal failures on Psion palmtops seems to be that the touch-screen stops responding to stylus taps. You can drive most applications using just the keyboard, but the loss of the icon bar is more serious. Before giving up on your Psion completely, or sending it in for a costly repair, it's worth noting that there are undocumented keyboard shortcuts that allow you to reach the 'silk-screen' applications.

[Ctrl]+10064 (i.e. holding down [Ctrl] and typing "10064") brings up the System screen, [Ctrl]+10065 brings up the first application on the icon bar (Contacts on a Revo, Word on a Series 5mx, etc.), [Ctrl]+10066 brings up the second application, and so on, right up to the somewhat pointless display of the Extras bar (worthless without a working touch-screen, of course).

*Liam Thornton, London*

## PC Suite connections

### Nokia 9210/9210i/9290

With 'PC Suite for Nokia 9210 Communicator' being based on Psion and Symbian's much-criticised PsiWin, it's perhaps not surprising that there are

occasional hiccups, with the communicator failing to connect to the desktop. If you have other serial port peripherals, it's important to make sure they aren't trying to 'poll' the serial port that the 'Nokia connect state' process is using. For example, you may also have a USB-connected Palm OS handheld attached to the same computer—watch out that Palm's HotSync Manager is not also set to look at your computer's serial ports. If there are potential conflicts, it's worthwhile moving each program's shortcut out of your 'Windows Start Menu | Programs | Startup' group so that they are not all kicked off each time the PC is booted up. Instead, move the shortcuts back into the respective Start Menu program groups and just activate them as and when needed.

Finally, note that failed PC connections are often due to instability in the communicator itself. Rebooting the PC is often your first thought, but it's usually quicker and more useful to reboot the Nokia communicator instead.

*Paul Nelson, editorial staff*



**Incoming infrared objects are always handled correctly by the Messaging application**

## Incoming infrared

### Nokia 9210/9210i/9290

One time-saving tip for Nokia communicator owners is that you can use the 'Receive via infrared' menu command (or the [Chr]+[:] keyboard combination) from within any application without worrying about whether you're being beamed a contact, a calendar entry, a file, etc.

Whatever it is, Messaging then gets called upon to process the new item, not the application you happened to be in when you used the menu command. So, for example, if someone wants to beam you a file while you're in Contacts, you can still use 'Receive via infrared' without bothering to open up File Manager first.

Derek Westerby, GIBALTAR

## Memory space saver

### Pocket PC

If you use your Pocket PC to access the Internet regularly, you may have noticed a build-up of temporary cached Internet files and cookies. These files provide a clear record of your online activity and, maybe more importantly, take up valuable storage space. You may also have noticed a steady increase in the number of temporary files on your device. Such files are created and used regularly by

the operating system and a number of other installed applications. However, some applications fail to delete them when they are no longer needed, and these junk files quickly build up on your device, despite being obsolete.

Advanced Pocket PC users can manually seek out and delete these junk files, but it is safer and easier to use a third party application designed to do this for you. There are several available, including the excellent Space Reclaimer ([www.valksoft.com](http://www.valksoft.com)). This lets you delete your temporary files, cookies and



**Reclaiming valuable memory space**

Pocket Internet Explorer history quickly and safely.

Joanne Catalya, Florence, ITALY

## The missing jog dial

### Pocket PC

I've recently switched from a Sony (Palm OS) handheld to a Pocket PC, but I read a lot of ebooks and really miss being able to use the Sony Jog Dial to page through books as I read them.

Although my iPAQ has no jog dial, I noticed that it's possible to reassign the Pocket PC hardware buttons to various scrolling (and other) functions, as well as simply assigning them to launch applications. By going into 'Settings' from the Start Menu and tapping on the 'Buttons' icon, I reassigned button 5 (the one at the top left of the machine, just like a

normal jog dial) to the <Scroll Down> function.

Of course, I still have to use the four-way navigator button when I want to go up a page, but the button on the side of the machine offers a much more comfortable way to page down through my ebooks, and of course works to scroll down in all other applications as well.

Marcus Hartmann, Essen, GERMANY

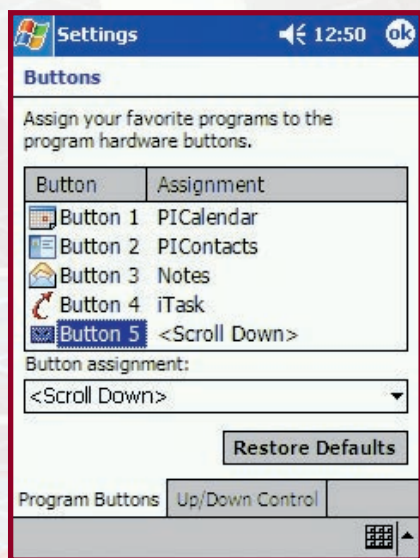
## Fast, flexible backups

### Pocket PC

In order to perform a *complete* backup of your Pocket PC's internal memory, it's normally necessary to use ActiveSync's Backup facility. This is not just interminably slow, but only allows the *entire* memory contents to be restored *en masse*. This is of course perfect if you suffer a hard reset or have to replace a broken handheld, but makes it impossible just to recover a single corrupted file, or something you've accidentally deleted or overwritten.

Every Pocket PC now seems to come with a built-in utility to back up internal memory directly to a storage card, and these all allow the restore process to do so selectively, even down to a single file or folder. As well as being much more flexible than ActiveSync, a complete 64MB card backup takes only 5-10 minutes. This was a relatively expensive option a year ago, but now a 64MB SD card costs as little as £20, making it practical to keep a separate (and thus safe) copy of your memory contents.

David Hope, Crawley, West Sussex



*Reassigning button 5 as a 'virtual jog dial'*



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## Get your handheld-related questions answered by our editorial panel...

### Tungsten searching

#### Palm OS

**Q** The search facilities of my old Psion allowed me to search for a name and address, not only by putting in the name, but alternatively by typing in part of the phone number or address. The Find function in my new Tungsten T only seems to work from the start of a word. I tried a program called FindHack, but it wouldn't work on my machine and so I deleted it again.

Ronnie Stekel, London

**A** This is a restriction of the generic Find function and, yes, FindHack ([perso.wanadoo.fr/fpillet](http://perso.wanadoo.fr/fpillet)) is one of the gems of the Palm OS world, and is what you should be installing to get around it. Some software archives will still have version 3.8 or earlier, which works perfectly on everything except Palm OS 5, which is what your Tungsten T uses. The good news is that, as we went to press, FindHack v4.0 has been released, with full support for Palm OS 5. Even better, it's now a

standalone utility and you don't need to install Hackmaster (or similar) in order to use it.

### Going international?

#### Palm OS

**Q** I recently switched to a job which entails a lot of travelling, and I now have to make international calls on the go. I mainly use my Palm Tungsten T to initiate the dialling process,

#### FindHack 4.0

##### Global options:

☒ Enable FindHack

Remember last ▼ 5 searches

☐ Non-Roman Language  
(Japanese, Chinese, Hebrew, etc.)

##### Instructions:

Use your handheld's Find icon to start a search.

Sets...

Favorites...

Built-Ins...

*Powerful searching with FindHack*



but the bulk of my contacts' numbers do not have the respective country codes incorporated (with hindsight, I should have input them from day one). Short of manually modifying the numbers contact-by-contact, is there a program that could make a batch-job of adding the dialling prefixes?

*Rudy Chow, SINGAPORE*

**A** There's no tool available to run on the handheld itself, but the standard Export/Import process from Palm Desktop works remarkably well, and means that you can manipulate your contact details in a text editor or spreadsheet. It's by no means a fully automated process, but is really the only option. In detail, you should:

1. Back up your user folder inside the \Palm directory, just in case.
2. In Address Book, within Palm Desktop, use 'File | Export', using the 'Comma separated' option. Give the file a name such as 'contacts.csv' and put it in a folder you'll remember.
3. Open up 'contacts.csv' in WordPad (or whatever text editor or spreadsheet program you prefer).
4. Using search and replace, replace comma-doublequote-zero-one (,"01) with comma-doublequote-plus-four-four-space-one (,"+44 1). Repeat this for other area codes.
5. Save the file as it is. If using a spreadsheet program such as Excel rather than WordPad it will complain that you may be losing vital information by saving in a generic format, but ignore the warning and continue.
6. Back in Palm Desktop, select all your existing contacts and delete them. Then use 'File | Import', choose 'Comma separated' and choose 'contacts.csv' again.
7. The 'Specify import fields' wizard will pop up and you can safely accept all the defaults and continue, since the data came from your Palm Desktop in the first place.

That's it. If you're paranoid about losing information or text layout, you might like to create a new 'Test' user within Palm Desktop and import into this account instead, in order to check the import process in more detail.

## Left behind TomTom?

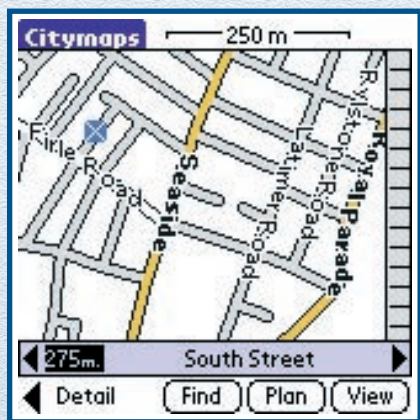
### Palm OS

**Q** I am running out of internal memory on my Palm m500. I have an abundance of space on my SD expansion card, yet I'm not able to put it to good use. TomTom City Maps and Route Planner don't seem to work with the card, and can't find their maps when installed onto SD. I'm feeling more and more exasperated with my m500—maybe buying a m515 or Tungsten T would solve the problem?

*John Wallis, Dagenham, Essex*

**A** An m515 will behave in exactly the same manner as the m500, and the Tungsten T won't run the TomTom software at all. Although the developers seem to have been left behind somewhat in the Palm OS





*City Maps, here running from SD card on a Palm m505*

world, it's quite easy to fool City Maps and Route Planner into using maps installed into a named folder on your SD card. The trick is to use a file manager such as FileZ ([www.nosleep.net](http://www.nosleep.net)) in conjunction with a utility such as PiDirect II ([www.pitech.com](http://www.pitech.com)) or MSMount ([www.geocities.com/nagamatu](http://www.geocities.com/nagamatu)), which perform the required 'smoke and mirrors' trick to make the files appear to the operating system as though they're in internal memory. For more information on memory issues under Palm OS, see 'Memory to the Max' in Palmtop User issue 2.

## Down, boy!

### Palm OS / all handhelds

**Q** My Palm m505 keeps popping up a 'Waiting for sender...' dialog and I can't work out why. It only does it a few times each day, but it's very annoying.

*Ian Duncan, Eastbourne, Sussex*

**A** There's almost certainly another infrared device (probably a PC, PDA or printer) in your office, and your handheld is just trying to be friendly, acknowledging the presence of the other device and offering to receive something. If you don't use infrared very much, the easiest answer is to turn Beam Receive off in 'Preferences | General'.

## Psion? Symbian?

### Psion / Nokia / Symbian

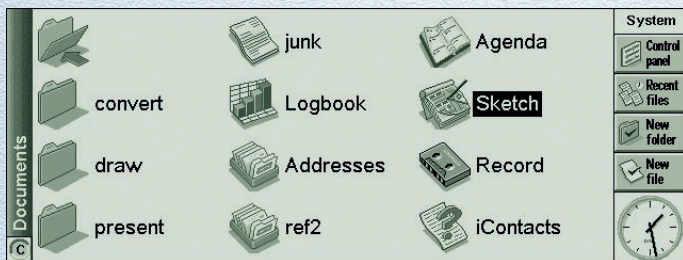
**Q** As a Palm owner for many years and a Palmtop User subscriber since issue 1, I'm finding some of the content for other handheld platforms rather confusing. Pocket PC is clear enough, but what's the difference between Psion, EPOC and Symbian, and where does Nokia fit into all this?

*Ivan Bertrand, Toronto, CANADA*

**A** Symbian is a software development company, owned by people like Psion, Ericsson and Nokia, among others. It's the source of Symbian OS, version 5 of which is also known as EPOC (usually ER5—for EPOC Release 5) and was used in the last generation of Psion palmtops.

Symbian OS 6.0 was used by Nokia for its 9200 series of communicators, and Symbian OS 6.1 for its Series 60 smartphones (including the 7650 and 3650). The Series 60 bit refers to the special non-touch screen interface in these devices (as a Palmtop User reader you may have gathered by now that Nokia doesn't like touch screens).





The 'classic' EPOC interface, here on a Psion Series 5mx

Symbian OS 7.0 is the latest, includes yet another new interface, UIQ, and has only been seen so far in the Sony Ericsson P800 (see page 46).

## What about the Zaurus?

### Linux

**Q** Why is it that Palmtop User never features the Zaurus range of palmtops and handhelds from Sharp? They seem to be the equal of the other computers you feature.

*David Bell, Arborfield, Berkshire*

**A** We haven't been too impressed with the Zaurus so far, at least the models that are available here in the UK. Two of our staff, both extremely experienced handheld and desktop users, had a trial period with the SL-5500 handheld, and both had significant problems.

The amount of software bundled with the

unit is impressive and the graphical interface is quite fast enough, with only the very occasional hint that there's Linux under the hood. Connections with a Windows PC are via TCP/IP, the same networking protocol used for internet access, (which may require you to reconfigure your firewall). Our biggest problem was that connections with Windows PCs were found to be unreliable, slow to set up and slow to disconnect.

We were also disappointed by the included Office software, with the word processor and spreadsheet losing significant amounts of original formatting and structure when synchronizing with desktop files.

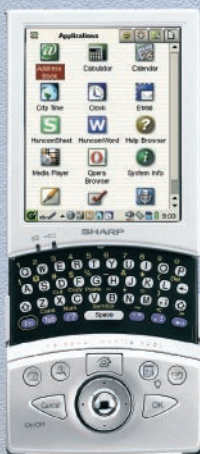
## A tricky selection

### Nokia 9200 series

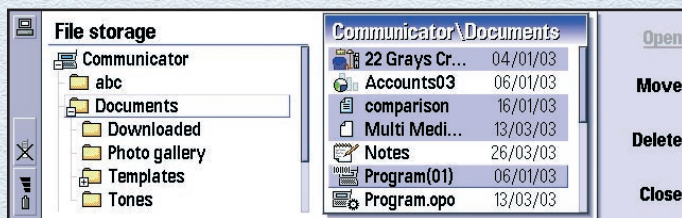
**Q** I read in the Nokia 9290 manual about selecting multiple files in a folder, but I can't get it to work for me. Can you explain in more detail which keys I have to press and when?

*Pete Hayford, New York, USA*

**A** Yes, the manual does seem to gloss over this somewhat. Here's what to do:







Selecting  
specific files  
in a folder,  
using [Ctrl]  
+ [Spacebar]

1. Press [Ctrl]+[Space], releasing the spacebar but keeping [Ctrl] held down.
2. Still with [Ctrl] held down, use the Up and Down arrow keys to move to the first file to be selected and press 'Space' to mark it. The file appears highlighted in blue.
3. Still with [Ctrl] held down, carry on navigating with the arrow keys, pressing [Spacebar] for each file you want to select.
4. Finally, release the [Ctrl] key.

You can then perform whatever it was you wanted to do.

## Keeping my options open

### Nokia / all handhelds

**Q** I'm a Pocket PC user, but I'm evaluating a Symbian-based Nokia 7650 or 3650 as a replacement. Until I decide to switch over completely, is there a way to get the Nokia to act as an infrared or Bluetooth modem, should I need internet access on my Pocket PC?

*Devon Davey, Chichester, West Sussex*

**A** Yes. The Nokia Series 60 devices have a 'Modem' mode under 'Connectivity'. Activating this allows another device (such as

a Psion, Pocket PC or even a laptop computer) to connect to the Internet using infrared or Bluetooth.

## Infrared dead?

### Pocket PC / all handhelds

**Q** I've been using a Compaq iPAQ 3970 for some time now, and I seem to be getting very unreliable results when I try to send or receive files via infrared. I've tried cleaning the infrared 'window' at the top of the device and varying the distance between the sending and receiving handhelds, but nothing seems to help. Is there some specific distance at which infrared works most reliably?

*Jan Welch, Durham, North Carolina, USA*

**A** Provided that you've got the 'Receive all incoming beams and select discoverable mode' option switched on from within the 'Beam' option under the 'Connections' tab of your Settings, the process should work without trouble, normally at distances from around 10cm (4") up to at least around a metre (3').

If the process isn't working, be sure that you don't have any other software loaded that might need to take control of the infrared system, such as the driver for an infrared keyboard.



Other than that, the most likely cause of the problem is that you're not using the latest software version on the iPAQ. Go to the 'Support and drivers' section of the iPAQ section on the HP/Compaq web site and look for updates. In particular, the latest ROM updates include some specific enhancements to the infrared functionality.

No matter what kind of handheld you have, it's always worth keeping an eye on the manufacturer's web site for important software updates. Not all devices allow the built-in system software to be updated directly to internal ROM in the way the iPAQ does, but sometimes updates can be applied as 'patches' to the existing software.

If applying a ROM update to your iPAQ, be sure to follow the instructions very carefully, and be aware that the upgrade will erase all data on the handheld, requiring that you perform a full backup first.

## Cascading menus, please

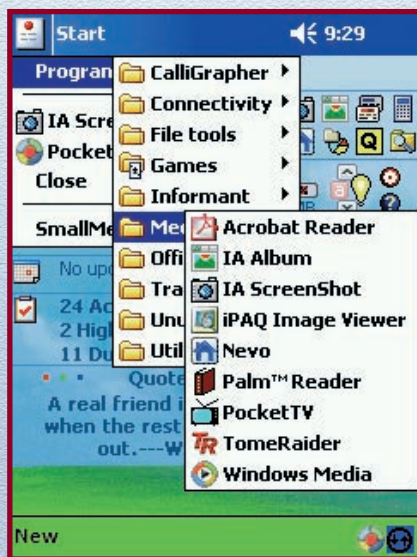
Pocket PC / all handhelds

**Q** I was browsing the Web recently and came across a screenshot showing what appeared to be a Windows-style sliding menu. I presume that this is a third-party application, but have no idea what it is called. Any help would be appreciated, as I find the standard Pocket PC Programs menu quite cumbersome to use.

*Mary Lündgren, Stanmore, Middlesex*

**A** There are several third-party applications that will add a cascading program menu to

your Pocket PC. Each has its own features and benefits, but they all enhance the experience of navigating to your programs. Two that we particularly like are SmallMenu ([www.tillanosoft.com](http://www.tillanosoft.com)) and Pocket Facelift ([www.pocketfacelift.com](http://www.pocketfacelift.com)). Both integrate a task manager with a cascading program launcher, and allow you to quickly and easily execute, switch and close your programs.



*SmallMenu's hierarchical Start menu*

## Get YOUR name in print!

If you have a puzzling question relating to your handheld computer then why not send it in to us? The most interesting questions will appear in the Q&A section on these pages, answered by our editorial panel.

Send in your entries by mail, fax or email using the contact details given on page 1.



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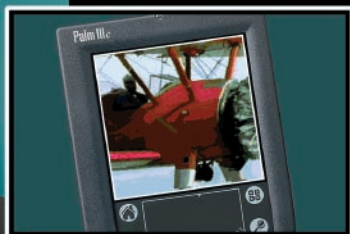
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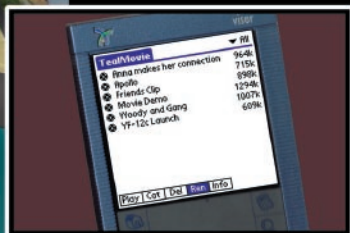


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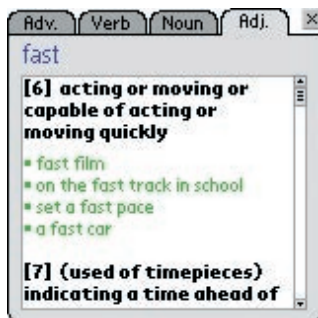


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# Next issue...

## ***Planned for issue 5:***

- ▶ More hardware on test, including new PDAs from Sony, Toshiba and others
- ▶ Choosing the best PDA for you. We look at the relative merits of Palm OS, Symbian and Pocket PC
- ▶ Keeping your data safe. Using encryption to prevent unwanted access to your documents
- ▶ Our top 10 tips for making the most of your handheld's spreadsheet application
- ▶ Top travel accessories for your handheld. Essential aids to make your road trips run smoothly
- ▶ Using your PDA in conjunction with a digital camera—how to make the most of these two complementary devices
- ▶ Printing from your handheld. We look at the various options available for all platforms
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